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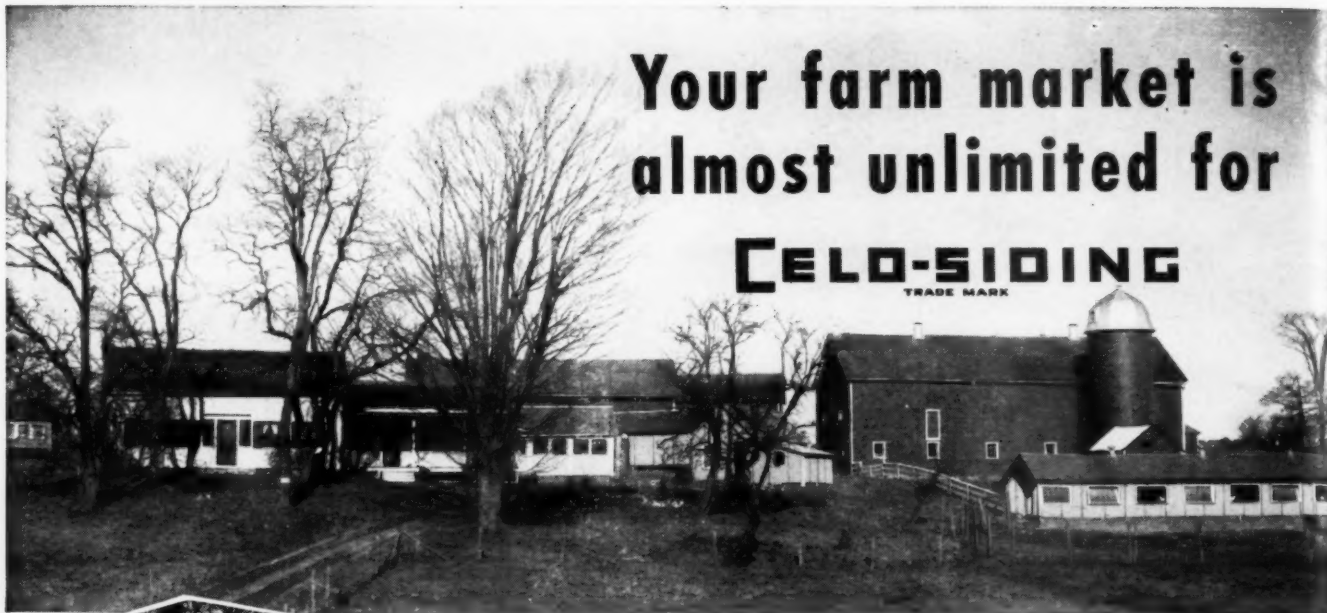
# AMERICAN BUILDER

WORLD'S GREATEST  
BUILDING PAPER

A N D B U I L D I N G A G E



**Saving to Aid Selling**  
*In Colonial Colony Development*



Your farm market is  
almost unlimited for

**CELO-SIDING**  
TRADE MARK



Only ONE application of  
CELO-SIDING gives you

INSULATION

SHEATHING

STRUCTURAL  
STRENGTH

EXTERIOR FINISH

and you build a  
better building in less  
time at lower cost!

The Celotex product ideal for  
constructing *insulated* farm  
utility buildings

**A remarkable product**—Celo-Siding offers  
insulation plus sheathing, structural strength  
and exterior finish, all in *one application!*

**Perfect for any utility buildings**—brooder  
houses, range shelters, laying houses, work  
sheds; almost any farm utility building can  
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economically.

**Nationally advertised** in farm publications.  
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available to Celo-Siding dealers.

**Available now!** See your Celotex represen-  
tative or write us—find out how *you* can use  
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Celo-Siding is a superior insulation siding. Core is genuine  
Celotex Cane Fibre Board, famous for insulation and  
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growth. All sides and edges sealed against moisture by coat-  
ing of asphalt, extra thick on outside and surfaced with  
durable, colorful finish of firmly imbedded mineral granules  
that never needs painting.

**CELOTEX DEALERS:** We will supply Celo-Siding broad-  
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TRADE MARK

ONE OF THE **CELOTEX** BUILDING  
FAMOUS PRODUCTS

**THE CELOTEX CORPORATION • CHICAGO 3, ILLINOIS**

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No sitting on sills

No leaning out

No risky ladder

## SAFE, EASY CLEANING

*... what a booster of good will for you!*

You can bet that any woman who gets these safely and easily-cleaned windows will tell friends about them. She'll help the word get around that you think about the housewife when you plan and build your houses.

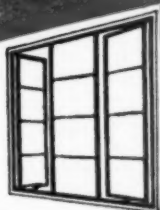
The easy opening of these windows lightens the cleaning job, too. They can't warp, swell or stick—they're steel. Screens are inside, protected from outside dirt that rain washes through onto

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The Fenestra standardized line of residence casements affords the choice of exactly the right windows for every room in the house. This standardization saves you money and installation time. Write for details. Detroit Steel Products Company, Dept. AB-9, 2260 East Grand Blvd., Detroit 11, Michigan.

*Up-to-date houses call for up-to-date windows*

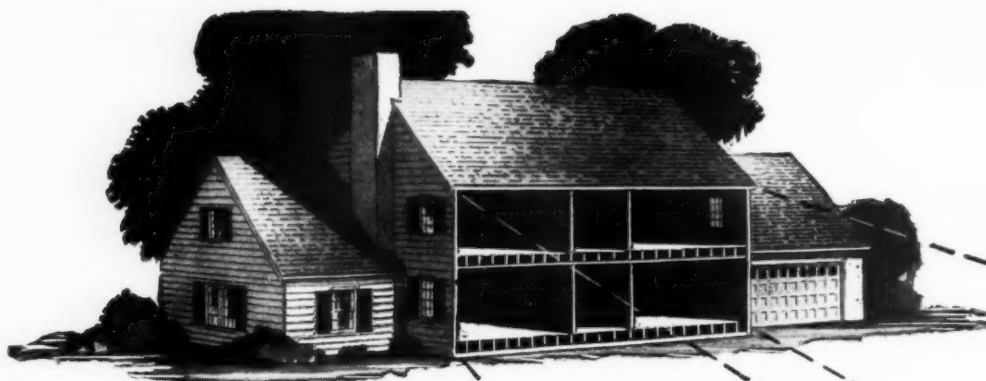
# Fenestra



RESIDENCE STEEL CASEMENTS

### OTHER IMPORTANT ADVANTAGES, TOO

- Greater beauty
- More daylight
- Better ventilation
- More weather-tight
- Better screens
- Lower upkeep
- Made right by America's oldest and largest steel window manufacturer



**HERE'S WHERE  
DOUBLE DUTY  
INSULITE GIVES**

# Double

Pull any house apart . . . take a look at those outside walls.

That's where *double service* is appreciated by your customers.

That's where you can speed up construction, do a better job,  
meet competition profitably.

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(1st) *It Builds*

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Two services for the price of one! Your customers get more for their money, and the word gets around that you give real satisfaction in house construction. That means more business for *you*.

Insulite *insulates* as it builds. One material — double service —  
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**Strength?** It provides greater bracing strength than wood sheathing horizontally applied.

**Insulating Value?** It provides greater insulation than wood sheathing.

To speed up the job and make a better profit, use double-duty Insulite.

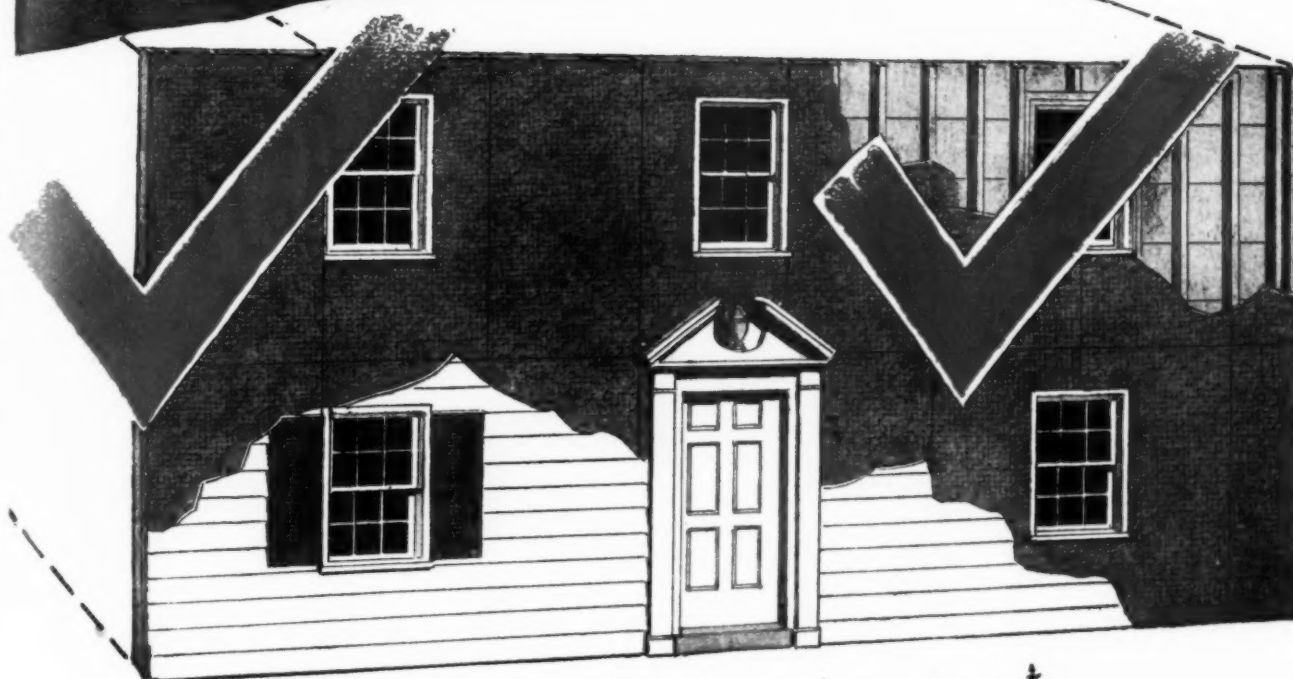


**INSULATES AS IT BUILDS . . . .**



**When you Build or Remodel . . . .**

**... FOR THE MONEY!**



**BUILDS AS IT**

**double-duty  
INSULITE**

*The GENUINE*

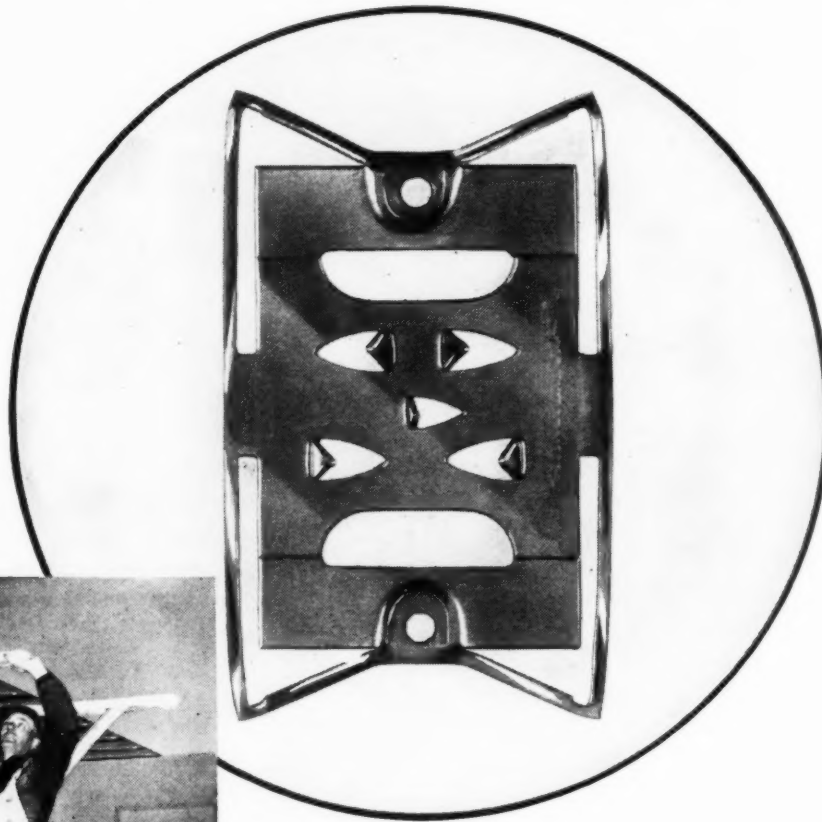
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MINNEAPOLIS 2, MINNESOTA

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# *Only* **UPSON** *offers* *this Unique Floating Fastener*



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Applied direct to studs. Upson Floating Fasteners anchor the panels securely from the back. They completely eliminate ugly face nailing.

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G. J. LeN.

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I. J.

**THE UPSON COMPANY • Lockport, New York**



# AMERICAN BUILDER

AND BUILDING AGE

F O U N D E D — 1 8 7 9

SEPTEMBER

VOLUME 69

1947

NO. 9

## C O N T E N T S

### AMERICAN BUILDER and BUILDING AGE

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AMERICAN BUILDER HAS THE LARGEST CIRCULATION OF ANY TRADE JOURNAL IN ANY FIELD

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# Asbestos in Action



BEAUTY THAT  
WILL LAST...

## K&M "Century" ASBESTOS-CEMENT SIDING and ROOFING SHINGLES

This attractive cottage with its "Century" Asbestos roof and sidewalls has three qualities that countless GI's and other home hunters want . . . good looks, good value and low-cost durability. It's the type of construction that offers many advantages to dealers and builders . . . for K&M "Century" asbestos-cement products are easy to handle and apply.

They're economical in cost, suitable for any type building and last indefinitely. Being asbestos-cement, they are proof against weather, fire, rot, rodents and termites . . . and they never need to be painted.

"Century" Siding Shingles come in color-fast shell white and graytone . . . in ready-to-use 24" widths . . . with grained, weathered surface in wavy butt-line style.

"Century" Roofing Shingles are supplied in various styles to suit any taste, fit any architectural plan, harmonize with any environment.

Your local K&M dealer will be glad to show you samples, quote prices, name delivery dates and give you whatever other information you desire about K&M products.

*Original manufacturers of Asbestos-Cement  
Roofing Shingles in this country*

**KEASBEY & MATTISON**  
COMPANY • AMBLER • PENNSYLVANIA

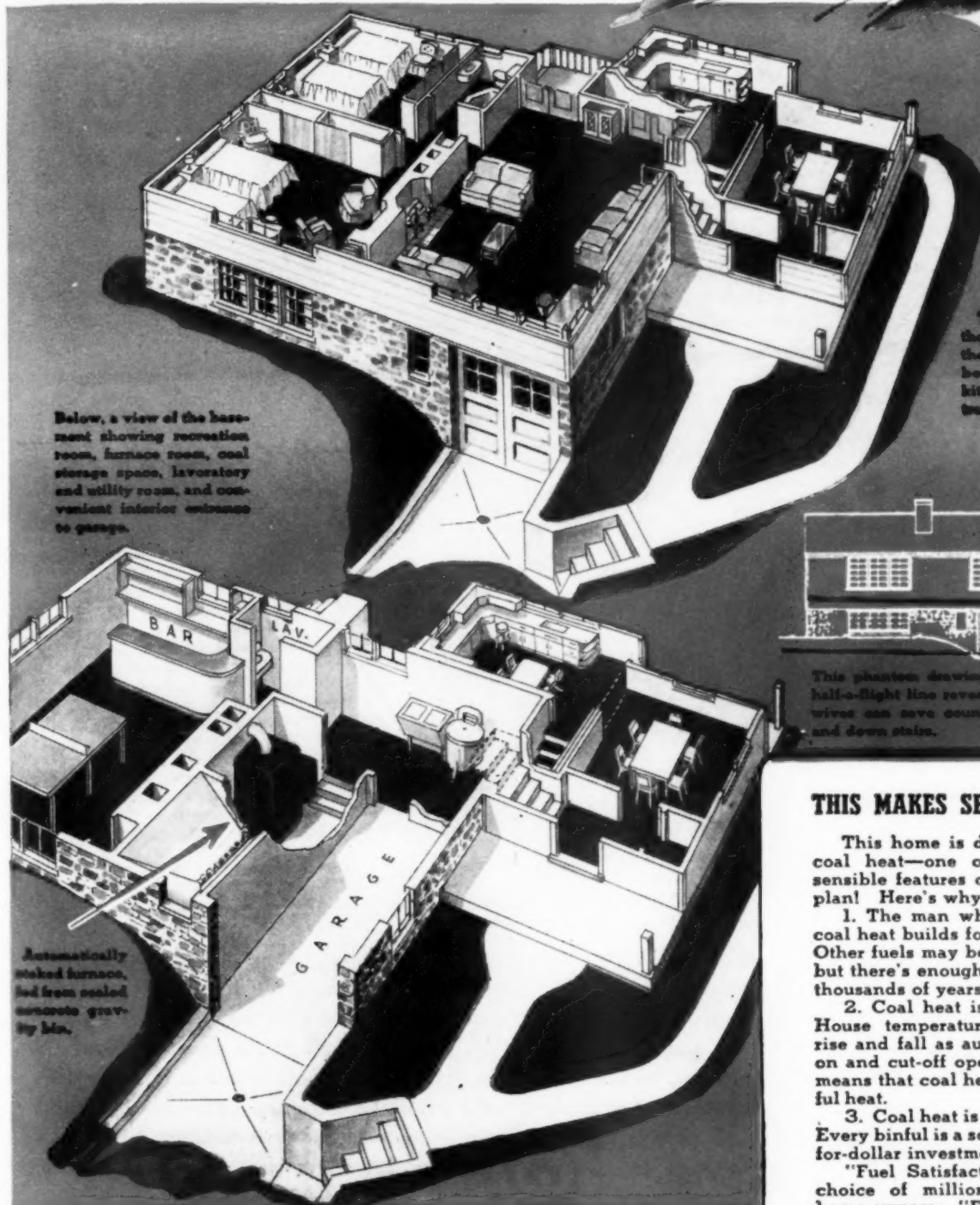


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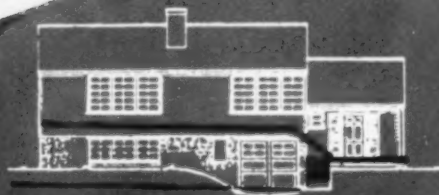
## Half flights... often make **DOUBLE** sense!

Among today's bright moderns, there's an unwillingness to give up good ideas just because they're different—an insight that finds "double sense" in many ideas which depart from the old, accepted ways. Here's a house that's better because it's different. This is a brilliant little home with a true basement rather than an in-the-ground cellar . . . a house with hall, dining-room and kitchen at easily accessible ground level, yet with living and sleeping quarters set up half-a-flight to provide more privacy, more light, better ventilation and better view! Here's a house designed for *different living*!



Below, a view of the basement showing recreation room, furnace room, coal storage space, lavatory and utility room, and convenient interior entrance to garage.

This isometric shows the clever plan that lifts the living room and bedrooms above the kitchen and hall entrance levels.



This phantom drawing showing the half-a-flight line reveals how housewives can save countless steps up and down stairs.

### THIS MAKES SENSE, TOO!

This home is designed for coal heat—one of the most sensible features of the entire plan! Here's why:

1. The man who plans for coal heat builds for the future. Other fuels may be exhausted, but there's enough coal to last thousands of years!

2. Coal heat is even heat. House temperature does not rise and fall as automatic cut-on and cut-off operate. This means that coal heat is healthful heat.

3. Coal heat is economical. Every binful is a sound, dollar-for-dollar investment!

"Fuel Satisfaction" is the choice of millions of smart home owners. "Fuel Satisfaction" is the superior, all-purpose bituminous coal mined along the Norfolk and Western.

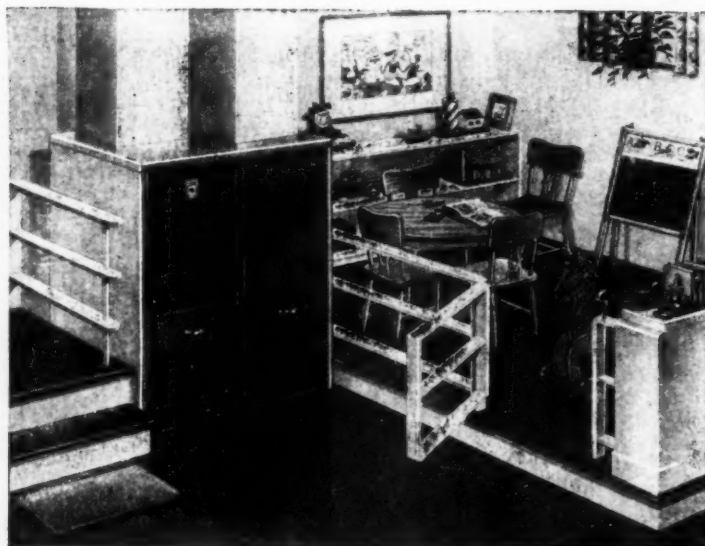
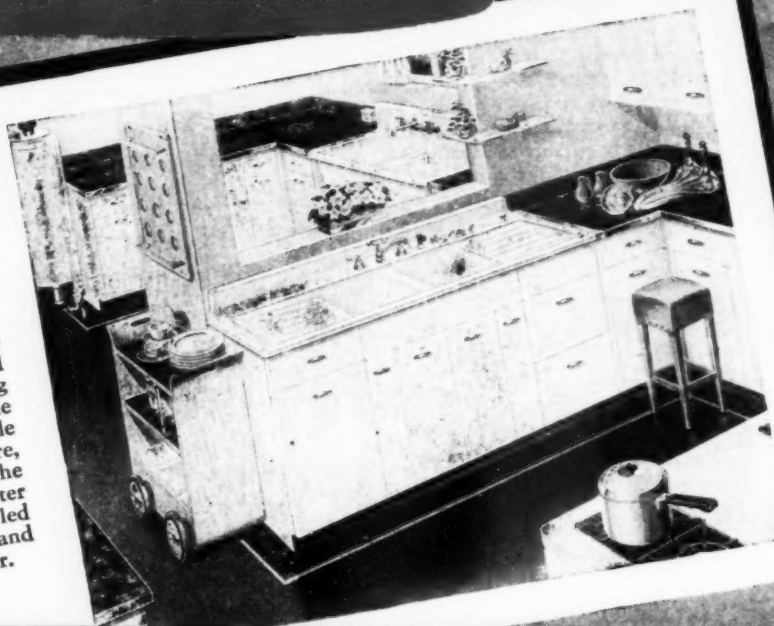
## Norfolk and Western Railway

CARRIER OF FUEL SATISFACTION

# With AMERICAN-Standard

*—more room  
for work*

A trim trio of American-Standard products makes this combination kitchen and utility room for small homes unusually convenient, attractive, and sanitary. The **ROYAL HOSTESS Sink** is of rigid cast iron with a heavy coating of acid-resisting enamel. The **ALDEN Laundry Tray**, also made of sturdy cast iron enamelware, is of one-piece construction. The gas fired **BUDGET Water Heater** in its gleaming white enameled jacket completes the picture and provides plenty of hot water.



*—more room  
for play*

The streamlined Placid Two-Tone Blue jacket of the **SENECA Winter Air Conditioner** harmonizes perfectly with the attractive setting of this basement playroom and protects valves and controls. The Seneca, with its durable copper bearing steel heating element, provides the dual benefits of clean, conditioned air, and carefree, automatic heating. Burns natural, manufactured, mixed, or liquefied petroleum gas. In five sizes for small to medium sized homes.



■ You have the widest latitude in room arrangement when you use American-Standard products. Designed, engineered and styled to meet practically any need, they permit you to make the most of whatever space is available... enhancing any setting with their trim, smart lines and eye-catching beauty. And their efficient, economical operation over the years assures lasting customer satisfaction. For complete information, contact your Heating and Plumbing Contractor. **American Radiator & Standard Sanitary Corporation**, P. O. Box 1226, Pittsburgh 30, Pennsylvania.

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**LOOK FOR THIS MARK OF MERIT**—It identifies the world's largest line of Heating and Plumbing Products for every use... including Boilers, Warm Air Furnaces, Winter Air Conditioners, Water Heaters, for all fuels—Radiators, Convectors, Enclosures—Gas and Oil Burners—Heating Accessories—Bathtubs, Water Closets, Lavatories, Kitchen Sinks, Laundry Trays, Brass Trim—and specialized products for Hospitals, Hotels, Schools, Ships, and Railroads.





## PUBLISHER'S PAGE

### ***The Hearings About Housing***

A COMMITTEE of the national House of Representatives is investigating the housing situation. It will hold hearings in 15 cities in all parts of the country. It will take testimony regarding practices of labor unions and employers, obsolete building codes, and other influences allegedly tending to restrict building and unduly increase its cost.

Conditions demand the construction of an unprecedented amount of housing for an indefinite period. It should be provided by private enterprise. But the private building industry has been under fire for years for alleged failure to provide enough good housing at low enough costs. It has been seriously threatened with competition of public housing subsidized with the taxpayer's money.

It is still true that the best defensive is a vigorous offensive. The home building industry will best serve its own long-range interest by helping expose every policy and practice tending to hinder adequate good building at reasonable costs.

Everybody in the industry knows there have been practices in it which have been inimical to efficiency and economy. But the industry has not been attacked for its own sins alone. It has been attacked for the *effects* of everything done by anybody that has tended to hinder efficiency and increase costs. These wholesale attacks, which have originated principally with the propagandists for public housing, have been made because these propagandists have been promoting *socialism*, and know that the best way to promote socialism is to blame private enterprise for everything that goes wrong.

The enemies of private enterprise can be relied on to tell the congressional committee all about the sins of the build-

ing industry. But private enterprise is not responsible for the labor union "make-work" rules and practices in the building field. Government is primarily responsible for antiquated and restrictive municipal codes which increase building costs. The private building industry is not responsible for slums which have come into existence because local politicians, for their own purposes, have not enforced municipal sanitation and fire ordinances intended to prevent slums. Excessive taxation of real estate as compared with other property helps make rentals of private housing higher than they should be. Private enterprise is not responsible for this inequitable taxation; and yet the high rentals it helps necessitate are used as an argument for building public housing and subsidizing its tenants with taxes largely collected from owners of private housing.

There should be exposure of *all* the influences tending to restrict housing construction and increase its cost. But there will not be adequate exposure of *all* these influences and their effects unless the building industry is represented in the hearings before the House committee by fully-informed, competent and courageous spokesmen. Propagandists for public housing and representatives of the labor unions will do their utmost to discredit the private building industry both to the congressional committee and the public. The hearings and the committee's report and recommendations can redound to the advantage of the industry only if the industry makes sure a complete and constructive job is done of informing the committee and the public.

*Samuel O. Dunn.*

**anybody  
can sell a house today!**



But paint it right with Pratt & Lambert Paint and Varnish and see how much more easily you can sell it. Here are fresh, new paint colors timed for today's market. Labor costs are lower; profits higher! No time is wasted mixing, tinting or trying out — painting begins immediately.

Ready-to-use P&L Paint colors are easy-working, have excellent hiding and are the colors you want when you want 'em.

Give your houses that fresh, sparkling modern look that invites customer confidence. Get the cream of the greatest home building market in history. If you haven't had copies of the modern P&L Painting and Varnishing Specifications, covering high-grade, medium-priced and low-cost homes, write for yours today. Pratt & Lambert-Inc., 80 Tonawanda Street, Buffalo 7, N. Y.

**PRATT & LAMBERT**  
paint and varnish



**ADDS MEN  
TO YOUR CREW  
but not to your  
payroll!**

**25% MORE PRODUCTION FROM EACH MAN-HOUR**

The amazing  
**MONARCH  
UNI-POINT**  
Portable radial  
saw

Like an invisible crew of extra men on the job at no cost . . . because it's 25% faster on average work than ordinary radial saws that lack its ingenious features! The Monarch Uni-Point Portable Model TNT ends costly waste motion, saves at least one whole week's saw time each month.

Only with Uni-Point® does saw enter work at same point always, regardless of crosscut angle. The Monarch Uni-Point Portable miters, bevels, compound miters—with no repositioning of lumber, no blade adjustment. no trial starts when switching from one angle cut to another.

As one operator says: ". . . I think this Uni-Point saw is the finest machine I have ever owned. It is rugged, exact and easy to use." It's safer. No jutting arm to cause injury or obscure work. Monarch Uni-Point Portable permits full-view vision all the time. A cinch for two men to carry. Made of magnesium, it's the lightest, most compact 12-inch radial saw in the world. Light-socket power is ample for all cutting jobs. Big 3 x 16-inch crosscut and 20½-inch ripping capacity . . . every "big saw" feature except bulk.

● **BIG FREE BOOKLET TELLS ALL**

Let this free booklet show you all the exclusive features that put the Monarch Uni-Point Portable head-and-shoulders above any other radial saw you can buy today . . . for output, for accuracy, as a profit-builder on the job. Prices just reduced, too. Write for booklet today.



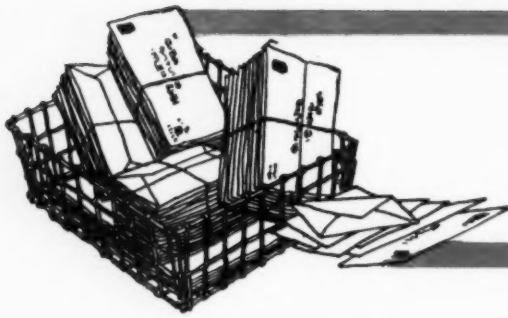
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Manufacturers of Saw Mills and Woodworking Machinery

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## Our Readers Say:

### Books or materials

*To the Editor:* Are your advertisers in the book selling business or are they selling building materials? Every time you ask one for prices and engineering data you get an offer of a book from 10 cents to a dollar and some literature with a pretty girl on it telling you you should buy their materials. What an insult to intelligence.—GEO. W. BILLINGTON, CLEVELAND 7, OHIO.

### Likes new printing

*To the Editor:* I have just received the July issue of the *American Builder* and from the immediate glance it certainly looks to me like a swell job. There is more dealer and merchandising information in this issue than I've seen in a long time.

I was particularly interested in the section from pages 68 to about 120. This technique of printing, while it is not too clear in certain illustrations, I am sure will improve as time goes on and will be more interesting than straight black and white copy or engravings. Frankly, I like it.

This issue is certainly packed with worthwhile information for contractor-builders and dealers. Congratulations on a darn swell job.—G. F. HOPPE, Advertising Manager, Insulite, Minneapolis, Minn.

### Bradford story praised

*To the Editor:* The magnificent spread in the July issue of the *American Builder* has left me quite speechless until now. It was a beautiful job of layout and a great compliment to our organization and our way of doing things.

As a young and aggressive organization we have hopes that some day we may again have a story to tell worth the consideration you gave this one.

We anticipate numerous inquiries from people who might not see the article. I wonder if you could send us several copies to give in answer to such inquiries, in tear sheets, if possible.

Please convey our appreciation to Mr. Hansen, and once again, thank you for the article.—ARTHUR ZINKIN, Jr., Bradford Homes, Inc., Evansville 14, Ind.

### Glad to hear it

*To the Editor:* The reason for this letter is to make sure that a good lumber office will have nothing but the top building journal that it can buy, edited by none other than an old crusader in the person of Ed. Gavin.

I am asking that you please enter our subscription to the *American Builder*, to be sent to Mr. Henry H. Broschius, Georgia Hardwood Lumber Co., Pier 179 North, Delaware River & Westmoreland St., Philadelphia, Pa.

As you have probably heard, I have liquidated my interests and severed my relations with the Broschius Lumber Co., Sunbury, Pa., and am now acting as manager of the Philadelphia office of the Georgia Hardwood Lumber Co., and Georgia Distributing Yards.

This is going to be a somewhat new and I hope brighter field, with good prospects of being able to do a better job in the lumber and building supply industry.—HENRY H. BROSCIOUS, Georgia Hardwood Lumber Co., Philadelphia, Pa.

### Nobody wins

*To the Editor:* At the present time the veteran can borrow from the government up to \$4000 which is about 50 per cent of the amount required to build a desirable home.

Due to a combination of circumstances or conditions, the homes being built at the present time are not only overpriced but are being constructed of inferior materials and are definitely price dated and will be shunned within a very few years by prospective home buyers when conditions become normal and quality materials again available, which means that the veteran is investing in a sure loss.

The amount loaned by the government, I will agree, is about the maximum that can be safely loaned to the average home that is being built at the present time at a cost of \$8000 to \$8500 and as the average veteran has little money to invest and second mortgages under the circumstances are almost impossible, a great many of them are not able to build, and if they do it is a matter of necessity and in a great many cases against their better judgment.

However, the government says in so many words, "We are going to cram these high prices, poorly constructed homes down the throats of the veterans and hang these big mortgages around their necks if they want them or not, regardless of finances or whether they have decided on where they want to settle, they must build if they want a roof over their heads."

On the other hand there are hundreds of people (not veterans) who want to build, who have the money to build,

who can absorb the loss that is sure to come, or so it looks now, who would release a house or an apartment that a veteran could buy or rent, and what difference does it make if we need 1,000,000 units, whether they are built by veterans or by others as long as we get sufficient housing facilities.

It is my opinion that instead of giving the veteran a home sweet home the government in a great many cases are giving them a hell of a sick headache if they only realized it.—A. W. GOEDERT, Inver Grove, Minn.

### Article states facts

I have been a subscriber to the *American Builder* for a long period of years. In your July issue you had an article entitled "This Business of Home Building." I have read a great many articles in the journal but this one is highly complimentary to you and your organization. It goes to show that the only way to meet the housing needs is through private enterprise. It is true that the facts are misrepresented in our daily newspapers, and, as realtors and builders, we should tell the true picture of what private enterprise can do.—J. S. SEEDS, Realtor, Altoona, Pa.

### Old subscriber speaks

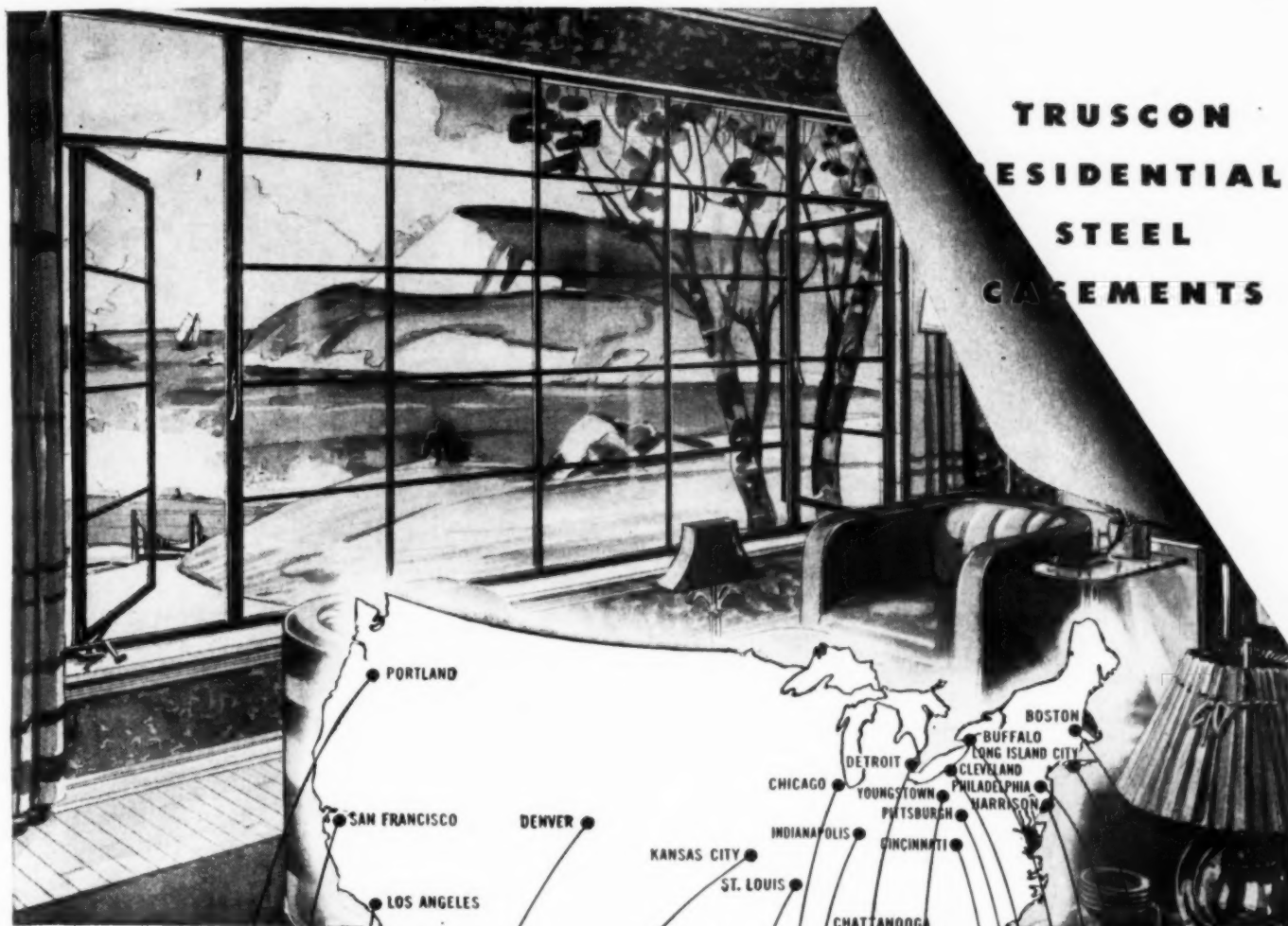
You do not need to tell me the importance or benefit of subscribing to the *American Builder*. I have been a subscriber since 1895. When the *American Builder* first came out edited by William Radford (it was then known as the "American Carpenter and Builder") I was one of their first subscribers. Since then I have been a subscriber through the various changes of names, first, "The Carpenter & Builder," "Building Age" and as it is now, *American Builder*.

I have always enjoyed going through every issue from front cover to back. I am now glad to renew my subscription for another three years and hope to live to get the benefit from it.—A. CONRAD MYERS, Builder, Buckingham, Pa.

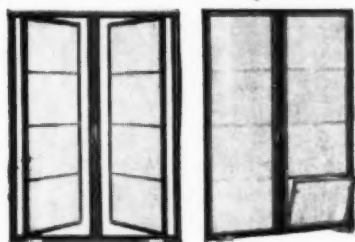
### Tests A.B. first

*To the Editor:* The enclosed letter is self-explanatory. Quite naturally we said that in our opinion *American Builder* was the leading magazine in its field.

Should you at any time in the future be disposed to run any more of our Ranch Type Houses, we have some new plans we would be glad to show you.—R. H. HANAUER, W. C. TACKETT, INC., Chicago, Ill.



*Immediately Available from Truscon Warehouses!*



**SCREENS AND STORM SASH  
ALSO AVAILABLE**

Truscon Casement Screens and Storm Sash are made especially for Truscon Casements, assuring neat, snug fit. They can be quickly installed or removed.

● Our manufacturing facilities are now geared up to meet the great demand for Truscon Casements with prompt shipments.

Just as before the war, Truscon Steel Casements are the first choice of home builders who want extra distinction and extra value from their window investment. Truscon heavy steel construction, corner-welding, projection-welding of hinges, and fine hardware assure long life and an absolute minimum of maintenance. All Truscon Residential Steel Casements are Bonderized and given a baked-on prime coat of paint at the factory.

Cash in on this year's big home-building market by using Truscon Residential Steel Casements — immediately available through your local Truscon dealer.

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**Kawneer presents**

# Zourite

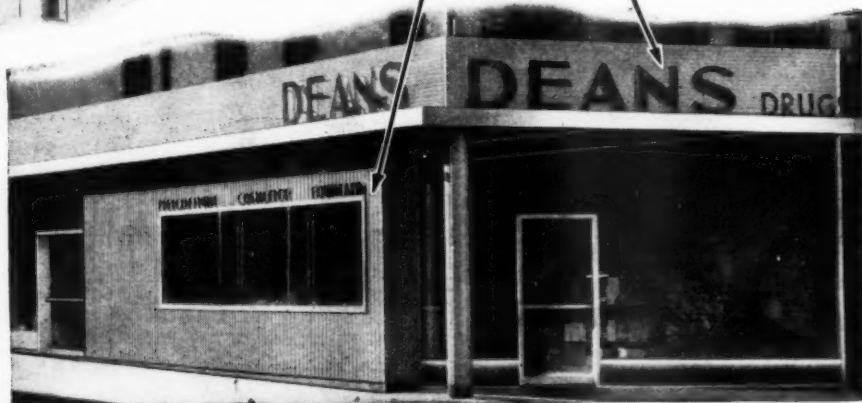
**A NEW ALUMINUM  
FACING MATERIAL**

- Handsome appearance
- Easy to install
- Easy to maintain



This modern shopping center in Modesto, California, makes use of Zourite as a facing for the walls which separate the stores and as a decorative covering for the cornice.

On Dean's Drug Store in Niles, Michigan, Zourite has been applied vertically to the exterior wall and horizontally to the sign area above the projecting ceiling ledge.



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**BEFORE**

These "Before" and "After" pictures of Smith's Store in Oakland, California, show how successfully Zourite can transform an out-of-date building into a striking, modern store. No major alterations were made to the face of the structure. Architects: Confer & Willis. Contractor: C. M. Teigland Construction Company.

**AFTER**



## **ZOURITE — THE MODERN FACING MATERIAL FOR FACADES, WALLS, CEILINGS, TRIM, AND OTHER EXTERIOR AND INTERIOR SURFACES**

Zourite is ideal for all facing jobs . . . for new construction or remodeling . . . for all types of commercial buildings.

Made of easy-to-work aluminum with a soft, semi-lustrous finish, Zourite is styled to the highest standards of contemporary architecture. Its decorative, cleanlined pattern and moderate price make Zourite a handsome and practical covering for the largest facade surface or the smallest area of trim.

It can be applied to exterior or interior surfaces without major structural changes. High costs for demolition work and alterations are eliminated.

Shipped complete with furring strips, fastening clips\*, and trim mouldings, Zourite can be applied horizontally or vertically to masonry, wood, or metal surfaces. Adjustable tongue and groove joints\* reduce job-site labor and eliminate the special manufacture of odd sizes and

\*Patent applied for.

shapes to meet individual job requirements. They also allow for expansion and contraction.

Easily maintained, Zourite can't chip, rust, or scale. It is washed clean with water, and it requires no painting.

Zourite comes in 8½-in. and 4¼-in. widths and 20-foot lengths which can be quickly cut to desired lengths on the job.

Write for construction details and new illustrated Zourite book: Send request to The Kawneer Company, 764 North Front St., Niles, Mich. Factories are located at the above address and at 903 Dwight Way, Berkeley, California.

**Kawneer**  
SALES-BUILDING  
**STORE-FRONTS**

# TRENDS

## BUILDING MATERIAL — EQUIPMENT — APPLIANCES

### Predicted Residential Building Slump Fails to Materialize

**L**AST spring's widespread predictions as to the possibility of a slump in residential building have not materialized. Nationwide starts of permanent new non-farm homes have exceeded each month of 1946 thus far except March when there was a decrease of 5.8 per cent, according to revised data of the Bureau of Labor Statistics. The 75,000 housing units started in June exceeded the number placed under construction in June last year by more than 10,000, an increase of 17 per cent. BLS states that the continuation of the rise in new homes started is significant since the month of June has frequently, during past years, marked the beginning of a seasonal decline in home building.

The increase brings to 359,000 the total number of new permanent dwellings started during the first six months of 1947, placing this year's activity 19,000 units ahead of the first half of 1946.

June reports showed slight decreases in the New England, Middle Atlantic, and West North Central Regions. The reports indicated greater building activity in suburban areas and small towns and villages; apartment house construction also increased more than proportionately.

The Federal Housing Administration reported that it received in June more applications for mortgage insurance than in any previous month in its experience. The figure was more than five times the volume received in June a year ago and represented an increase of nearly 25 per cent over April, 1947, the previous high for the year.

#### Housing Shortage Unabated

Estimates of the "emergency" need for homes range from 1,500,000 to 3,000,000 dwelling units. Federal housing experts estimate that 2,000,000 veterans are so hard hit by the housing shortage that they are living cooped-up with in-laws, or in tents, trailers, basements, attics, converted chicken houses or other makeshift quarters. The Veterans of Foreign Wars estimate that 3,000,000 or about one-fifth of all ex-servicemen of World War II need homes desperately. According to a survey of the National Association of Real Estate Boards, on the other hand, the "emergency" need for the whole population is only about 1,500,000 dwelling units.

Even the smaller estimates, how-

ever, plus the fact that the record-breaking number of marriages last year is being equaled this year would indicate that the shortage has not eased appreciably.

#### Census of Housing

Complete reports of the bureau of the Census, expected in September, on its April survey of housing in 35 metropolitan areas will provide the best available estimates of the amount of overcrowding. To date reports on 13 cities are available. In Washington, D.C., 10 per cent of all dwelling units contain "husband-wife" sub-families. The percentage in other cities is as follows: Boston 6 per cent; Lowell, Mass., area 7 per cent, New Haven 8 per cent, Allentown area 11 per cent, Pittsburgh 8 per cent, Minneapolis-St. Paul 7 per cent, Philadelphia 10 per cent, St. Louis 7 per cent, Akron 9 per cent, Youngstown 11 per cent, Columbus 8 per cent. The survey indicates that from three to five times as many veterans are doubled up as there are civilian families who share living quarters.

#### Homes Are Better Equipped

The portion of the survey available shows that dwelling units in the cities surveyed are almost 100 per cent occupied. Properties for rent or sale in all cases are less than one per cent of the total housing supply.

A considerable improvement was made during the period 1940-1947 in the condition of homes in each of the areas. In every instance a larger number are equipped with private bath and flush toilet. In Pittsburgh the percentage rose from 56 per cent to 72 per cent. Ninety-five per cent of dwelling units are so equipped in New Haven, Conn., as compared with 85 per cent in 1940.

Except for Washington, D.C., and St. Louis a smaller number of homes are in need of major repairs. In Akron, Ohio, 16 per cent were in need of repairs in 1940 as compared with 8 per cent in 1947. In Boston the drop was from 10 per cent to 3 per cent.

#### Number of Persons Per Dwelling Unit Drops

In view of the demonstrated shortage, it would be expected that the number of persons per dwelling would be more than in 1940. Actually the

number dropped slightly or remained the same in every instance. This is accounted for by the fact that there is a larger proportion of young married couples in the population and by the trend toward smaller families. The number of persons per dwelling unit in 1947 ranged from 3.5 in Youngstown to 3.0 persons in St. Louis and Columbus.

The median number of rooms per dwelling unit ranged from 5.8 in Philadelphia to 4.1 rooms in St. Louis. The Bureau of Census has previously designated dwelling units occupied by more than 1.5 persons per room as overcrowded. On this basis there was less overcrowding than in 1940, since the surveys show that the percentage of dwelling units with an occupancy of more than 1.51 persons per room was less in 1947 than in 1940 in each of the thirteen cities. In Pittsburgh 9 per cent were "overcrowded" in 1940 as compared with 5 per cent in 1947. Three per cent were "overcrowded" in Worcester in 1940 as compared with 1 per cent in 1947. Since occupancy of 1.51 persons per room indicate more than six persons per four room dwelling unit or almost eight in a five room unit the census definition of "overcrowding" connotes extremely crowded living conditions. The trend towards improvement in this ratio indicates how the high level of consumer purchasing power and the bargains in "frozen" rental units have operated to bring down occupancy per room.

#### New Home Financing

Over half the families who built or bought homes last year under the FHA plan had annual incomes of less than \$3,500 according to a study prepared by the Federal Housing Administration. The study shows that 54.4 per cent of the families financing new homes had incomes of less than \$3,500 and their average income was \$3,619. Other new home averages were: FHA valuation \$6,545; mortgage principal \$5,553 or 84.8 per cent of valuation; monthly payment \$46.06 (including payments to principal, interest, mortgage and hazard insurance, taxes, and other fixed charges); monthly housing expense, including estimated maintenance, \$63.04. The total estimated monthly housing expense of mortgages will range from a low of \$47.04 to a high of \$121.78.



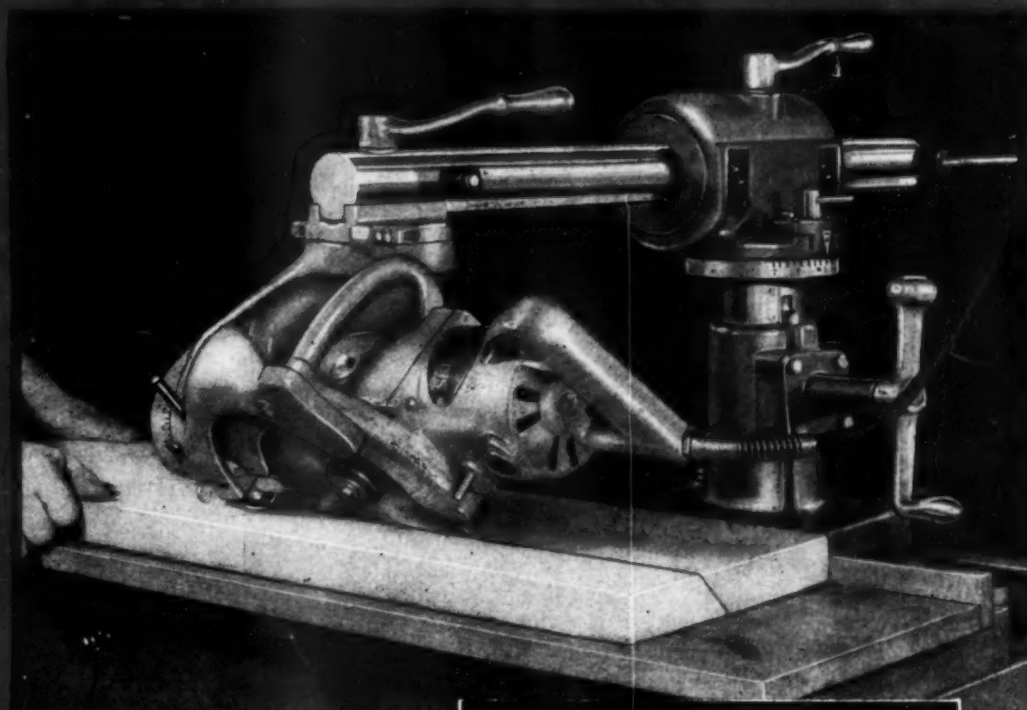
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# MULTIPLY YOUR SKIL SAW'S MANY USES with a SKIL SAW RADIAL SUPPORT

## Quickly Converts Portable Electric SKIL SAW into an Efficient Radial Saw

**MAKES ALL THESE CUTS  
WITH PRECISION**



SKIL SAW Radial Support may be had  
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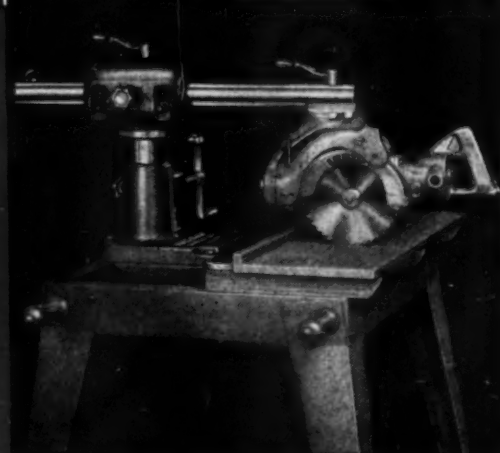
• Every SKIL SAW owner knows that this portable electric saw is tops for cutting wood, metal, stone or compositions accurately . . . free hand. Now you can add precision on multiple cuts simply by slipping your SKIL SAW into a Radial Support . . . you make the conversion quickly and easily. If you are interested in cutting big costs on any job, you ought to call your SKIL TOOL Distributor today for additional information on SKIL SAW Radial Support!

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**SHUTTERS**

**LOUVERS AND GABLE SASH**

**CASEMENT WINDOWS**

**FRONT ENTRANCES**

**NU-STYLE UNIT KITCHEN CABINETS**

**CORNER CABINETS**

**COMBINATION DOORS**

**ALL PRODUCTS BEAR THIS TRADE MARK**

**BILT-WELL WOODWORK**

**REG. U. S. PAT. OFF.**

**New Superior Unit Wood Windows**

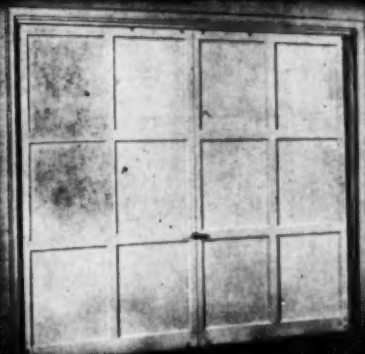
**New Bilt-Well Interior Doors**

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**New Nu-Style Kitchen Cabinets**

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CARR-DOR OVERHEAD GARAGE DOORS



# LINE



MANTELS

Now it can be told. For years Bilt-Well architects, engineers, and technicians have been busy designing, testing, and perfecting this new Bilt-Well Line of Woodwork Products.

They approached these problems with a thorough knowledge of your needs, and as a result you have . . . good design, ease of handling, ease of storage, ease of assembly, and economical installation. And . . . as a result of mass production by high speed precision machines you will be able to offer more value for the dollar and better service.

YOU can benefit from this new line!

Although Bilt-Well Woodwork is not available in quantities sufficient to satisfy the tremendous current demands, it will pay you to acquaint yourself with its many outstanding features.

Write us today for the name of the distributor nearest to you. Address Carr, Adams & Collier Co., Dubuque, Iowa.

Bilt-Well Products are illustrated in Sweet's Architectural Catalog on pages 5C/1 and 16B/2.



Bilt-Well Plant covers over 20 acres of floor space

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*New* Carr-dor Overhead Garage Doors

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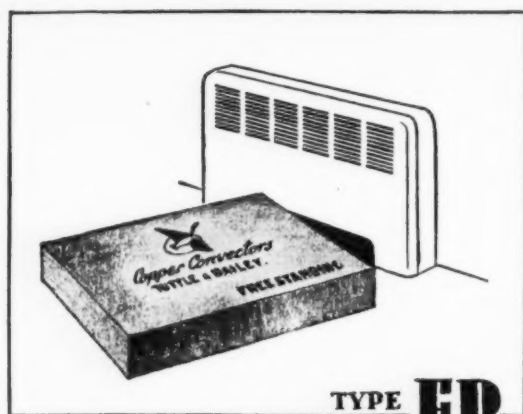
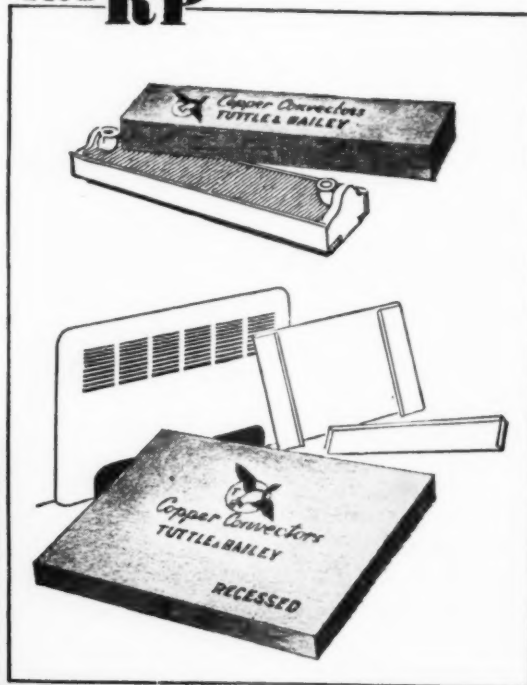
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TYPE **FP**TYPE **RP**

YOU'LL CALL THIS  
THE "PRIZE PACKAGING" OF

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\**We mean* **Convection Heating** . and **Tuttle & Bailey Convectors!**

With men responsible for the selection and installation of heating units, choice starts with the package itself! Recognizing the importance of this factor, T&B design engineers — thoroughly familiar with home-heating requirements *as well as* installation needs — have developed packaging that means real on-the-job convenience.

**TYPE FP . . .** for free standing use. Body, front, heating element (No. 2 tap only) . . . assembled and packaged in one carton, ready for quick installation . . . to make *your* job easier, save time. No extra parts

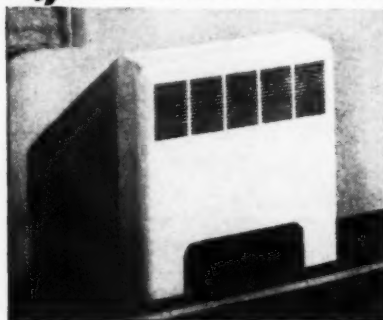
to order, no extra steps to waste. And, an added "prize" . . . light in weight.

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When you've selected the type and size of convectors needed, call your Tuttle & Bailey Jobber. Simplified packaging simplifies his stock . . . and will simplify getting the units you want when you want them.

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*A model for  
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**TILETONE'S  
complete line of**

**MODERN DESIGN  
SHOWER CABINETS**

Your jobs will be completed on time—and in time—when you specify Tiletone shower cabinets. For Tiletone has three styles available right now. If a built-in installation is desired—Tiletone has a de luxe cabinet combining streamlined beauty with genuine utility. Perhaps a basement installation gets the call—Tiletone utility cabinet is the answer. Or for the new modern corner installation—Tiletone offers something strikingly different. So, for new homes or old, a second bathroom, or basement installation, for office buildings, clubs, apartments or hotels, Tiletone has the models you can recommend with confidence.

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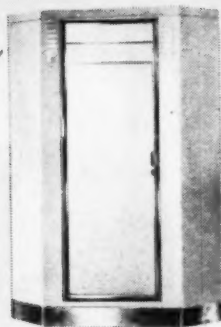
1. A new pre-sold market . . . big demand.
2. Assured satisfaction for the home owner.
3. No delay . . . available today.
4. Easy, fast installation . . . save space:

#### WHY SPECIFY TILETONE ?

1. A complete line . . . 3 popular styles.
2. New modern design . . . rigid . . . beautiful.
3. Improved receptor base . . . leak-proof drain.
4. Double-baked enamel walls . . . the finish lasts and lasts.

**TILETONE**  
*Shower Cabinets*

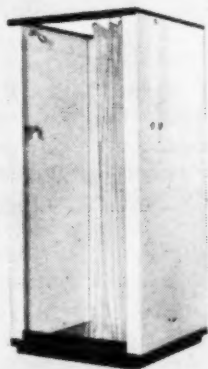
**TILETONE COMPANY**  
2323 WAYNE AVE., CHICAGO 14, ILLINOIS



**MODEL 75**

Sizes: 32" x 32" x 80",  
36" x 36" x 80" and  
40" x 40" x 80" Corner.

Terrazzo receptor • White  
enameled aluminum cabinet  
Interior lights • Anodized  
aluminum glass doors • Ad-  
justable shower head • Dial  
type mixing valve.



**MODEL 45**

Size 32" x 32" x 76"

Porcelain enameled re-  
ceptor • Aluminum pan-  
els finished in white  
enamel • Shower curtain  
• Shower head • Dual  
shower valves.



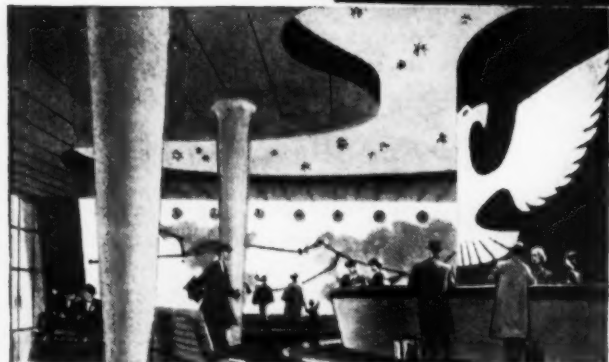
**MODEL 55**

Sizes: 32" x 32" x 80",  
36" x 36" x 80" and  
40" x 40" x 80" corner.

Terrazzo or porcelain enam-  
eled receptor • White enam-  
eled aluminum cabinet •  
Shower curtains • Shower  
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**IMMEDIATELY  
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THE LEADING HARDBOARD

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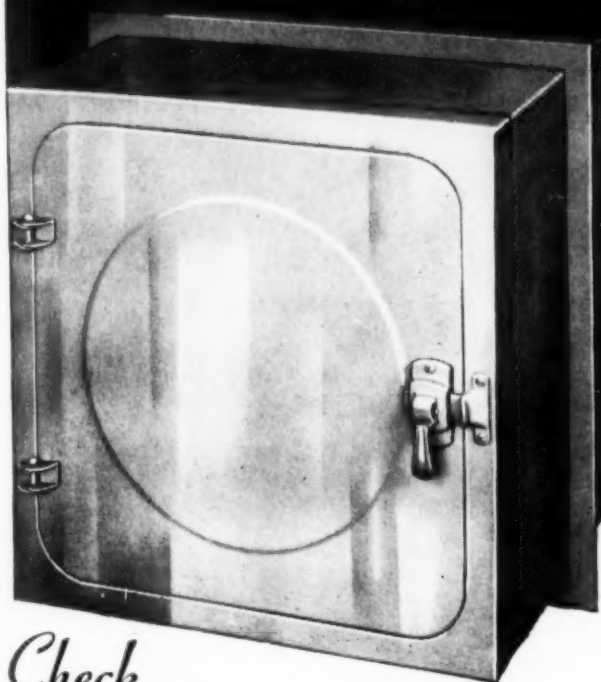
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TO VERSATILE HARDBOARD

# BUILDERS Here's the New Leigh

## PACKAGE AND MILK RECEIVER!



*Check these Features !!!*

**Smart Styling** — attractive hardware combined with round cornered doors — blends with any style house. Finished in baked aluminum.

**Installation Flange** — provides a rigid fastening to studing — also acts as weather stripping.

**Insulated Doors** — double doors filled with  $\frac{1}{2}$ " insulation protect perishable contents from heat and cold.

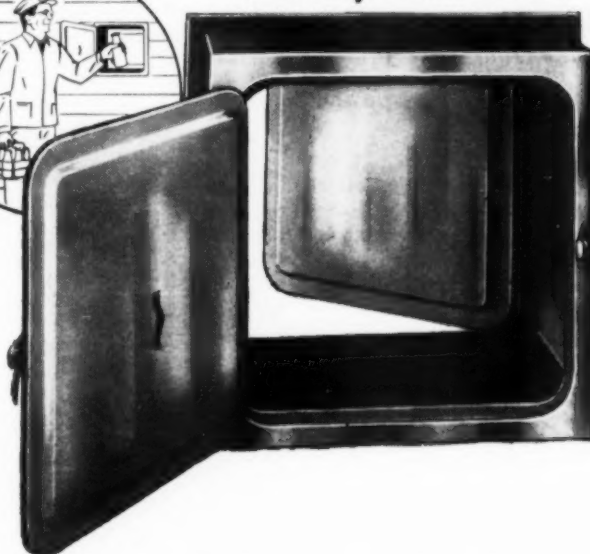
**Note Holder** — a convenient clip that holds instructions for deliverymen.

**Safety Doors** — round corners to prevent injury.

**Flush Bottom** — easily cleaned — will not collect dust or dirt.

An outstanding steel building necessity of sturdy construction attractively designed and mass produced for even the low cost home. The LEIGH Building Products provides the safe, sanitary and convenient method of milk and package delivery. Easily installed in brick or wood construction — heavy gauge steel construction with rugged hinges and positive catches, inner door cannot be opened from the outside. Can be used in old or new homes.

*Add a definite selling appeal to your new homes with Leigh Package Receivers!*



Style	Depth Overall	Wall Opening	Shipping Wt.
"F" Type	6 $\frac{1}{2}$ "	14" high x 14" wide	14 lbs. ea.
"B" Type	9 $\frac{1}{2}$ "	14" high x 14" wide	16 lbs. ea.



Manufacturers of the complete LEIGH line of metal building products. Ornamental Shutters — Attic and Roof Ventilators — Dust Chutes — Clothes Chute Doors — Basement and Brick Ventilators — Built-in Mail Boxes AIR-CONTROL line of Registers and Grilles.

*Styled and Built by*

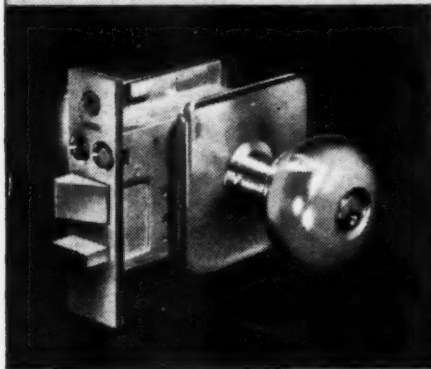
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COOPERSVILLE MICHIGAN



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### ENTRANCE LOCK for BETTER HOMES



● **SARGENT INTEGRALOCK®** is one of the handsomest locks to grace the doors of a home...and one of the strongest, safest locks ever made. It is proving immensely popular with home builders everywhere because it adds new security and a new touch of distinction to residential entrance doors.

● The Integralock is a factory assembly, which assures quick, foolproof installation. It is precision-made of pressure-formed metals, so that it gives more years of service without maintenance costs. It has an exclusive security feature that prevents the lock from being forced. And it is equally appropriate for every type of residential entrance door.

● In security, in appearance, in installation economies, Sargent Integralock is the ideal lock for residential entrance doors. Ask your Sargent Distributor for complete specifications, or write to Sargent & Company, Water Street, New Haven, Conn.

Quick Delivery from  
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## News, Views and Comments

### On and Off the Record

**362,800 HOMES**—That is the record of completions for the first six months of 1947. June saw 75,000 starts, the highest for that month since 1925. It is expected that even more starts will be made in July, August and September.

**1,000,000 HOMES**—The chances for completing that number in 1947 are still good. Inclement spring weather delayed many starts. Uncertainty of material supplies in urban centers delayed many others. Increased production and improved distribution have spurred latent activity in the cities.

**SMALL TOWNS**—The small towns and rural centers experienced no recession in 1947. Volume increases in such places offset cutbacks of proposed programs in large cities.

**REGULATIONS**—With practically all regulations off it is now possible and practical to build for the market. Fall and spring should see much needed activity in the construction of larger houses. In opinion of some builders the market for new minimum houses is reaching saturation.

**NORMAL BUILDING**—Unless public housers throw a monkey wrench in the works the way is now clear for production of new houses and apartments to meet demand of buyers, instead of demand of bureaucrats.

**RAY FOLEY**—His office reports record volume of applications for mortgage insurance from March to June by months with first six months' record of 276,000 applications. June figure was 62,227 applications of which 48,684 were for new construction.

**FORTUNE MAGAZINE**—The article about the home building industry, in which Levitt of Long Island and Byrne of Baltimore are featured, reaches a high level of integrity in reporting and analyzing. If it can be criticized it is on ground that it overlooks the need for individual house building on detached single lots. Probably was intended to deal only with mass housing. Should be read.

**GWINN COMMITTEE**—It has the greatest opportunity anybody has had thus far to probe into building as an industry, uncover inequities impartially, tell the public what they are, start a demand for reform at local levels.

**REFORM**—It cannot be accomplished by any single segment of the home building industry. Labor and building code abuses are too complicated and too deep rooted to enable any single segment to take a chance alone. That reform is needed in many localities is conceded by all progressive builders.

**LOCAL PROBLEMS**—One conclusion that the Gwinn committee can hardly escape reaching is that peculiarly local character of home building industry demands local handling of problems. Federal legislation is helpless to remedy anything that needs changing.

**BUILDING CODES**—Close study of these where building costs appear to be too high should uncover obsolete practices and restrictive provisions that cannot be justified in the interest of giving the public the most for its construction dollar.

**STUYVESANT HOMES**—Bricklayers on this New York project reported to have increased production from 400 bricks a day to between 600 and 700. That helps, but there was a day when every apprentice aspired to prove his ability by laying 1200 a day. Until unions are willing to permit employers to reward individual ability one of the causes of high building costs will remain.

**NEW YORK STRIKES**—Since pledge of cooperation and no jurisdictional strikes by Building & Construction Trades Council, A.F. of L., in New York on June 25, ten potential jurisdictional strikes were prevented.

**O'DWYER**—Ten minutes after the Mayor of New York posed for pictures at start of demolition work for United Nations Center, riggers and wreckers threatened jurisdictional strike. It was prevented. Two others threatened would have stopped all work on Stuyvesant House and Jacob Riis apartments.

**TAFT-HARTLEY SUIT**—After all the noise made by labor leaders that the Taft-Hartley bill was anti-labor, first suit under the new law was brought by a handful of carpenters in Los Angeles, with defendants the International Alliance of Stage Hands, and all major producers of motion pictures. Suit involves jurisdiction on work on stage sets and movie scenery.

# New ALUMINUM PRODUCTS bring quick sales and nice profits

## ALUMINUM ROOFING SHEETS

The finest roofing material for barns, sheds, garages, tool shops, etc. Aluminum Roofing *substantially reduces inside temperatures* during hot summer months because of the ability of aluminum to reflect the direct rays of the sun. Aluminum roofing is economical, too, as it will last a lifetime without maintenance expense. *Cannot rot, rust or crack.* Nichols Aluminum Roofing Sheets are available in 1 1/4" and 2 1/2" corrugations and 5 V Crimped in 26" widths, 6, 7, 8, 9, 10, 11 and 12 ft. lengths. Aluminum roofing accessories for all types of roofing are available.

**ALUMINUM  
IS NOT A  
SUBSTITUTE**

**Special sales proposition is now open and available to  
jobbers and dealers. Write us today for details.**

## Nichols aluminum nails

**ARE DEFINITELY SUPERIOR FOR USE IN APPLYING WOOD SIDING, ASBESTOS SHINGLE AND  
SIDING, BATTENS, PLASTER BOARD, WOOD SHINGLES, ALUMINUM AND ASPHALT ROOFING.**

War developed aluminum alloy wire invades the nail market. It is definitely superior for the above applications.

**RUST PROOF.** Rust from steel nails or oxidation from copper nails for any of the above applications will mar the surfaces on which they are used. Aluminum Nails are solid aluminum. There is no protective coating that can be knocked off the head by hammer blows. **ALUMINUM CANNOT RUST — CANNOT STREAK OR BLEMISH THE SURFACE.** They are **SANITARY** — put them in your mouth with the same safety as food cooked in an aluminum utensil.

**COMMON NAILS** in sizes 3d to 40d. Use for same applications as steel nails when ultimate in corrosion resistance is desired.

**ALUMINUM STAPLES**—9 gauge, 1" and 1 1/4" sizes.

All Aluminum Nails and Staples packed 50 lbs. per keg. A 50 lb. keg contains 50% more aluminum nails than a 100 lb. keg of the same size steel nails.

**Will ALUMINUM NAILS DRIVE?** Sure they'll drive! Send for samples.



1 pound  
Steel Nails

1 pound  
Aluminum Nails

**3 TIMES MORE ALUMINUM NAILS THAN STEEL**

Entire nail surface etched for maximum holding power.

## Nichols aluminum electric fence, garden and form wire



**FOR ELECTRIC FENCING**

Many miles of aluminum electric fence and garden wire are now in use everywhere. Aluminum is **FIVE TIMES BETTER** electrical conductor than steel. Thus, one electric fence charger can charge five times more aluminum footage than steel.

Aluminum is truly economical. It **CAN'T RUST** or "SHORT OUT". It is modern looking, easy to install and never needs replacing. It is ideal for use in gardens for grape arbors, trellis, etc. Also for use in holding concrete forms.

Available for immediate delivery in 10 and 35 lb. coils. Show it to your customers — it sells on sight.



**FOR GRAPE ARBORS AND TRELLIS**



**FOR  
CONCRETE FORMS**

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## HIGH-PERFORMANCE ADHESIVE USED IN INTERIOR-TYPE DOUGLAS FIR PLYWOOD!

### As Outlined In New U.S. Commercial Standard CS 45-47

**T**HOSE to whom Douglas fir plywood has long been a preferred construction material now find even greater advantages in this "modern miracle wood." For today, under the new U. S. Commercial Standard adopted by the industry, every panel of Interior-type plywood is manufactured with high-performance adhesive. This is the highly moisture-resistant (but not waterproof) adhesive long used in Plyform grade Douglas fir plywood—adhesive which withstands an average of at least 10 cycles of wetting and drying. Higher specifications for inner plys on all grades of Interior-type plywood have also been adopted. Together, these improvements mean greater usefulness, greater serviceability—and higher performance standards than ever before.

### IMPROVED INTERIOR-TYPE DOUGLAS FIR PLYWOOD NOW MANUFACTURED IN THESE APPEARANCE GRADES



**PLYPANEL**  
Sound 1 Side

PLYPANEL D.F.P.A.—So25

**PLYPANEL**  
Sound 2 Sides

A general-purpose Interior-type panel for applications where only one surface is to be exposed. Plypanel Sound 1 Side (So1S) replaces two former grades—both Plywall and the old So1S grade.

For applications where both surfaces are exposed (cabinets, cabinet doors, booth partitions, etc.)



**PLYSCORD**

An unsanded panel manufactured specifically for wall and roof sheathing and subflooring.



**PLYFORM**

Manufactured with the time-tested and proved premium adhesive which has now been adopted for all Interior-type Douglas fir plywood. PLYFORM is a structurally stronger panel, made especially for multiple re-use concrete forms.

★ For Permanent  
Exposure to Weather  
or Water, Specify  
**EXTERIOR-TYPE  
DOUGLAS FIR  
PLYWOOD**

**EXT.-D.F.P.A.**

Exterior-type Douglas fir plywood—identified by the "grade trade-mark" shown above—is made especially for permanent exposure to weather, water, and abnormal moisture conditions. This is the type to specify for the exterior of buildings, for outdoor signs, for marine construction, for railroad car siding—and for other applications requiring waterproof performance. Exterior-type—available in several appearance grades—is manufactured with completely waterproof phenolic resin adhesive and with higher performance inner plys as specified in the new U.S. Commercial Standard CS 45-47.



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OF THIS NEW  
COMMERCIAL  
STANDARD

Booklets giving complete data on the new U. S. Commercial Standard (CS 45-47) for the types and grades of Douglas fir plywood are available. Single copies will be mailed without charge to any point in the United States. Address your request to: DOUGLAS FIR PLYWOOD ASSOCIATION, Tacoma 2, Washington.

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LARGE, LIGHT, STRONG

*Real  
Wood*  
**Panels**



# More Prospects Become Customers

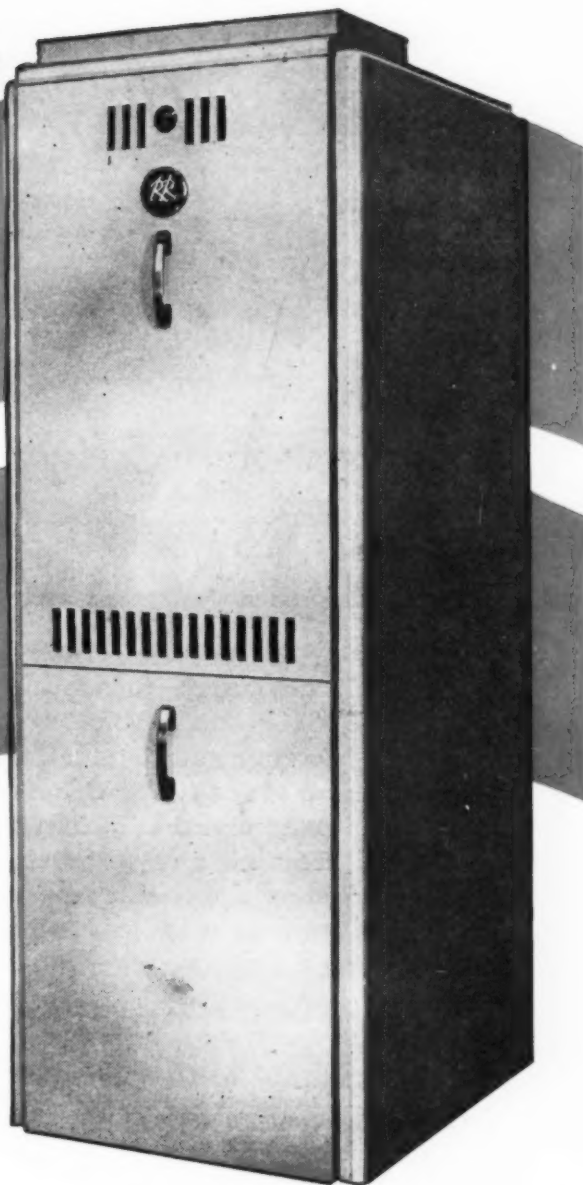
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**RICHMOND WINTER AIR CONDITIONERS**



**HOUSEWIFE:** "It's smart...the Dulux white enamel finish brightens up my home, matches laundry equipment."



**HUSBAND:** "It lasts longer!!! the cast-in-one-piece chrome-iron heat exchanger withstands higher temperatures... the limit control prevents overheating."



Sales are faster with Richmond because these Winter Air Conditioners have whole-family appeal. Women respond to their styling — men recognize their mechanical superiority.

Richmond Winter Air Conditioners are at home upstairs or down . . . fit in approximately 4 to 6 sq. ft. Heat, humidify, filter and circulate—all in one unit. Spun glass filters are easily renewed. Blower fan is rubber mounted for quietness. Completely packaged, quickly installed, Richmond conditioners cut profit-eating call-backs to a minimum. Carry both AGA approval and a one-year replacement guarantee. Get full details from your wholesaler or write Richmond Radiator Company, 19 East 47th Street, New York 17, N. Y. for name of nearest Richmond wholesaler.

## SHIPPED COMPLETELY ASSEMBLED

Winter Air Conditioner: Four sizes: 66,000, 90,000, 115,000, and 140,000 Btu input. Easily installed. May be converted to floor-type heater by addition of special cowl.



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*Affiliate Reynolds Metals Co.*

Exhausted Cast Iron Ware • Vitreous China • Porcelain • Gas Burners • Gas Winter Air Conditioners • Gas Gravity Furnaces • Radiators

With men who know trucks — **THEY CARRY THE WEIGHT!**



# CHEVROLET *Advance-Design* TRUCKS

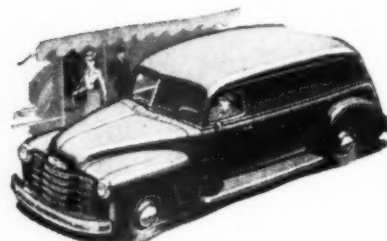
With experienced truck users, Chevrolet's new line of ADVANCE-DESIGN trucks definitely *carries the weight*—by preference and pounds! They're new . . . they're ahead of the times with *Advance Design* and the cab that "breathes"—that almost literally "inhales" fresh air and "exhales" used air.\* Here's profit-power and performance, plus new features and innovations well worth seeing—well worth owning!

The cab is **FLEXI-MOUNTED**—cushioned on rubber against road shocks, torsion and vibration! . . . **DRIVER'S COMPARTMENT** is wider, with more leg room. The seats are fully adjustable, bigger and more comfortable. Wider, deeper **WINDSHIELD** and **WINDOWS** increase visibility by 22%!

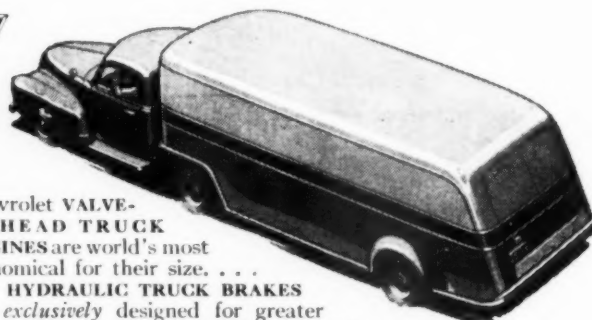


**THE CAB THAT "BREATHES"**—fresh air is *drawn in* from the outside—heated in cold weather—and used air is *forced out*!

Panels and pick-ups have **INCREASED LOAD SPACE**—stake and high rack bodies **MORE EFFICIENT LOADING**. . . . New, stronger, sturdier **FRAMES** are designed to carry greater loads greater distances for a longer time!



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CHEVROLET MOTOR DIVISION, General Motors Corporation, DETROIT 2, MICHIGAN

*been waiting to  
get into the  
bathroom...*



*wait no more*

### MIAMI-CAREY IS BACK!



Available now without allocation... that's the good news about this famous line of bathroom cabinets... the line that has set *quality* standards in the industry for 25 years!

And now the Miami-Carey policy of not skimping on quality, even when materials were mighty scarce, again pays dividends for you. There's no "jerry" merchandise to clear out, no second-rate reputation to be lived down. When you give homebuilders Miami-Carey cabinets... brother, that's the best!

To refresh your memory, that includes such quality features as Paint-grip, Bonderized steel...one piece construction... 5-year guaranteed copper-backed mirrors...high quality finishes...solid brass hinges and stainless steel mirror frames...as well as such famous "firsts" as concealed lighting, round mirror cabinets, tooth brush racks, and others too numerous to mention here.

So if you've been waiting to get into the bathroom with a quality line of cabinets that does justice to a really well-designed, well-built home... wait no more! Now again Miami-Carey is back with three outstanding lines —The Miami, The Cavalier, The Colonial—to fit family budgets of any size!

*don't forget* **THE FAMOUS MIAMI-CAREY LINE-UP ALSO INCLUDES . . .** a modern, fan driven, electric bathroom heater that's just what the owner ordered for frosty mornings! A smart, efficient, *comfortable* touch for the most modern bathroom, the Miami-Carey Bathroom Heater does away with "ice box" bathrooms.

The Miami-Carey Line-up doesn't

stop there! From access doors to soap dishes, from towel bars to door stops...there's a full line of chromium accessories to really set-off any bathroom.

But to get the complete story . . .



*write* **FOR THIS FREE CATALOG**

"Glorifying The American Bathroom" gives you a complete picture of the Miami-Carey line... gives you details and specifications of cabinet units and accessories... spotlights ideas you can use in your business of creating better homes. You'll want a copy handy for reference, for ordering. A postcard request will bring you a free copy by return mail. Address your request to Dept. AB-9.

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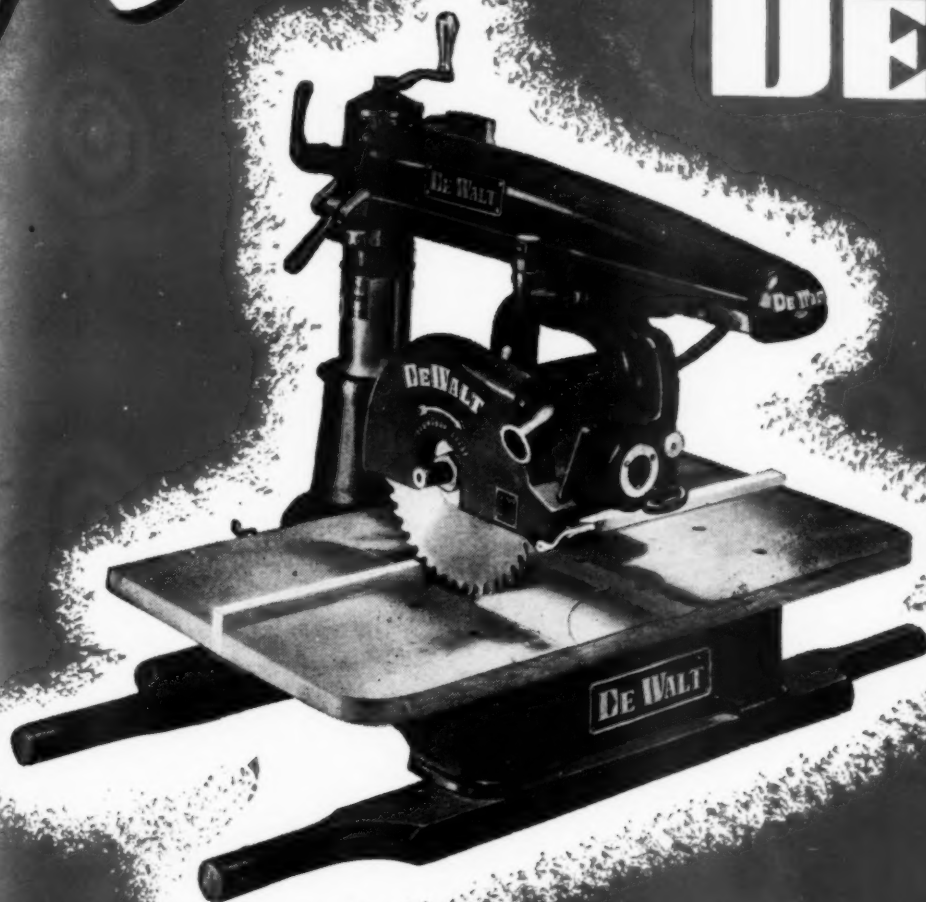
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BACK AGAIN...AND BETTER THAN EVER!

THE

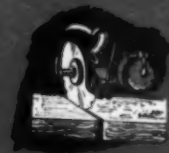
# Portable

# DE WALT

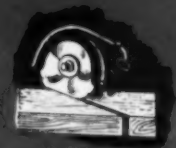


This ever-popular, low-cost DeWalt is the builders' first choice for fast, precision cutting. It's *first* in real value—*first* in safety and long-life dependability. When you put it on your building job, this DeWalt will give you "tops" in performance. It's the machine you should own to build more houses faster, better and at the lowest cost. It's a machine you can get quickly. Write for catalog. DeWalt, Inc., 19 Mountain Ave, Lancaster, Penna.

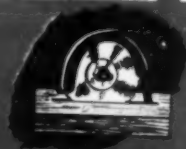
# DE WALT



.. a cut-off saw!



.. a miter saw!



.. a rip saw!



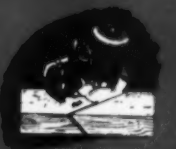
.. a dado machine!



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.. a rafter cutter!

ALL THESE AND MORE  
IN ONE... for the  
PRICE OF ONE!

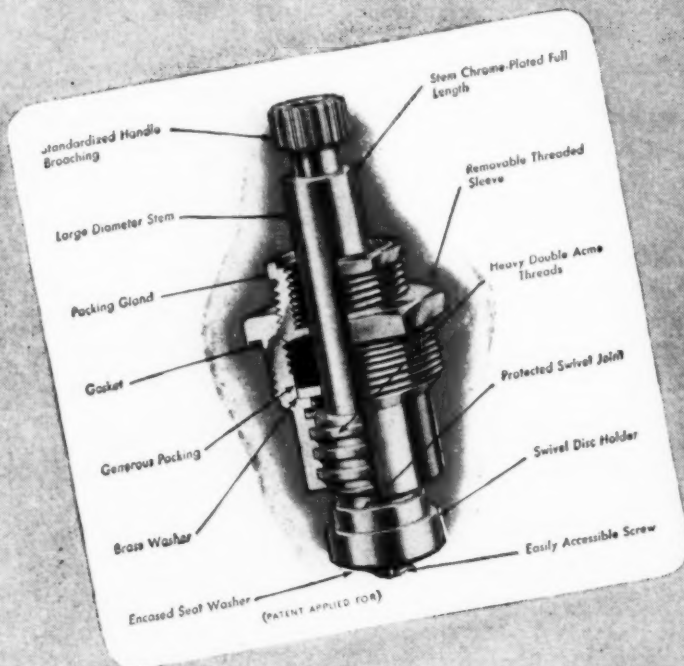
# The Martha Washington

by ELJER

The styling and high-quality features of Eljer vitreous china lavatories enable architects, builders and master plumbers to give customers *extra values* they recognize and appreciate.

Consider, for example, these features of the Martha Washington shelf-back Lavatory (Catalog No. 3150P). . . . real vitreous china . . . a lustrous finish, impervious to stains, and not affected by ordinary acids . . . concealed front overflow outlet with a smooth, unbroken back surface . . . anti-splash rim . . . chromium-plated 2-step legs . . . chromium-plated combination supply and pop-up waste fitting . . . ideally adaptable to single or multiple installation . . . long life . . . now being furnished in three colors and white.

**REMEMBER: Adequate Housing Will Eventually Mean At Least Two Bathrooms In Every Home.**



Eljer fixtures are available with quality *renewable brass fittings* . . . featuring the exclusive Eljer Swivel-Disc that virtually eliminates dripping. Faucets operate smoothly at the touch of a finger and wear on moving parts is reduced to a minimum.

Eljer's line of brass goods is a precision line, accurately gauged and can have no variations over the years. This is a standardized and simplified line . . . with a minimum number of interchangeable wearing parts to give long and satisfactory service . . . easily replaceable if ever necessary. Eljer Co., General Offices, Ford City, Pennsylvania.

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# MONTHLY REVIEW

NEWS OF THE NATIONAL ASSOCIATION OF HOME BUILDERS AND AFFILIATED ASSOCIATIONS

## Texas President Uses Radio to Tell Facts About Home Building

V. F. Buchek, president, Texas Association of Home Builders, and director of both NAHB and San Antonio Home Builders Association, spoke over Station KONO, San Antonio, in July, and said that the cost of constructing houses is not determined by the builder, nor raised or lowered by him. A builder, said Mr. Buchek, merely assembles the materials, and employs the labor necessary to construct houses. 30 per cent of the cost goes to



V. F. BUCHEK

labor on site; 45 per cent to building materials; 12 per cent to land cost, and only about 13 per cent to the builder to cover operating cost and profit.

After detailing the percentages of various costs entering into the total, Mr. Buchek said that house costs are not high in relation to current wage scales.

"Unlike after the last war," said Buchek, "labor is well organized, and our whole economy is geared to high wages. High wages are good, because they provide more dollars to spend for food, clothing, housing. So long as the demand for houses continues, craftsmen will demand and receive high wages, and the cost of building a home will remain high. The cost of housing has not increased as much as the cost of meat, clothing, food and other commodities.

"If you are thinking of your home in terms of a capital investment and want to buy cheap with the thought of selling at a profit, you will have to wait until we have another depression. In a depression labor is abundant, wages low, and materials relatively inexpensive."

## More Interesting Exhibits Are Being Assembled for 1948 NAHB Exposition

Paul S. Van Auken, Convention and Exposition Director for the National Association of Home Builders, recently returned from a trip to various sections of the country, during which time he had an opportunity to discuss with home builders plans for the 1948 Convention and Exposition.

Almost all of the builders expressed a keen desire in seeing at the show in February of 1948 new products and services which manufacturers will have available—not only those products which go into the homes, such as building materials, supplies and appliances, but also tools, implements and machinery used by the builder which will enable him to do a better job in less time, thus producing a house more efficiently and economically.

Another thing the builder is interested in seeing at the next show is a presentation of the products in such a way that he will have a better understanding of just how the materials or appliances should be installed. In other words, he is interested more in a working exhibit of a practical nature from which he can learn not only what products and services are available, but how to use those products and services to best advantage.

Every effort is being put forth from the Convention and Exposition Headquarters to interest old exhibitors in a presentation of their products in the most interesting fashion possible and, also, to bring into the show next year manufacturers of new products and materials. Every builder wants to show in his 1948 and 1949 houses as much new equipment as is available and practical.

Frank W. Cortright and his program committee are already working toward the development of a new type of convention program based on clinics and demonstrations dealing with various phases of the home building industry. It is planned to have a series of meetings on these different activities on Monday, Tuesday, and Wednesday mornings of Convention week, with general sessions being held each afternoon.

With the program committee and the Convention and Exposition committee working this far in advance, there is no doubt but what the 1948 Convention and Exposition of the National Association of Home Builders will be even more outstanding than it has been the past three years. An out-of-town attendance of around 10,000 is anticipated.

## National Association's Washington Staff



IN the photograph above are the principal administrative members of expanded NAHB Washington staff. Standing (left to right), are Hunter Wilson, Herbert Colton, William Tobin, Walton Onslow, Frank Cortright, John Dickerman, Daniel Morrison and Richard Saunders; (seated) Peggy Raynor, Maude O'Neal and Ruth Noll.

**Plan Now to Attend or Exhibit at the NAHB Convention February 22-26, 1948**

## Chicago Plans Forum Series for Luncheons

### First meeting to feature head of English Women's Advisory Housing Council

Nathan Manilow, president of the Chicago Metropolitan Home Builders Association has announced that beginning on

except for the Women's Conference, nor do I wish to be sponsored, because that would defeat the purpose of the tour. If I am invited to speak I wish to be free to voice my own ideas. I am all for private enterprise, but I can see that it has made bad mistakes in England. Otherwise it would not be in the sad condition it is at the moment in relation



**NATHAN MANILOW,**  
President CMHBA

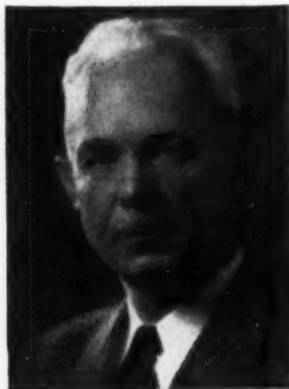
Monday, Sept. 22, the association will hold the first of a series of noonday forum meetings. Following the first meeting the forums will be held at noon on the second and fourth Tuesdays of each month through next June.

To select subjects and conduct the forums, Mr. Manilow has appointed the following committee: E. G. Gavin, chairman; C. Edwin Blomgren, Ainless G. Briggs, Roy Clavey, James Dunlop, William Hegman, Kimball Hill, Raymond Hines, Charles E. Joern, George Kalvog, Fred Lagerquist, Robert G. Nixon, Robert E. Oas, John Joseph Ryan, Howard Sloan. Tentative plans are to choose subjects of vital interest to home builders, covering many phases of operation, including pre-cutting, job site shop design and operation, contemporary home design, space engineering, state licensing for home builders, labor relations, performance guarantees, and others.

The general plan that will be tried at first is to have a well informed speaker introduce the subject with a short presentation, then follow with a question and answer period. It is expected that the programs can be built to provide much vital information for all home builders.

The first meeting will be addressed by Mrs. Millicent Pleydell-Bouverie, of London, England. Mrs. Pleydell-Bouverie is coming to the United States to address the International Conference of Women in Philadelphia, Sept. 5. Following the Philadelphia conference she plans to make a one month tour of leading American cities to inform herself on American methods of building homes. She established and became the public relations officer of the Housing Building Industries Standing Committee. She is also a member of the Housing Sectional Committee of the National Council of Women.

In a letter, Mrs. Pleydell-Bouverie said, "The point is this. I am not going to the United States as a sponsored person



**E. G. GAVIN,**  
Forum Committee Chairman

to the government housing schemes. All the fault is not on the government side."

Mrs. Pleydell-Bouverie will tell Chicago's home builders about home building in England, about her own part as a champion of private enterprise, and about the results of public housing in England.

## Cleveland Group Busy Carrying Out Extensive Program of Activities

Summer-end activities of the Cleveland home builders are in high gear, according to latest reports from Jim Funaro, executive director. Building has accelerated at an unusual pace during the month of July after a slow spring season overloaded with wet weather. Inquiries from the public requesting information on builders have tripled, according to Louise Madsen, office secretary.

Other matters in the organization's grist mill include study of the new proposed Cleveland City Code; conduct of a factual analysis on home construction costs and sales prices; tentative planning for next year's Greater Cleveland Home & Flower Show; a count of homes under construction, and a survey of areas for slum clearance.

Tony Lang, field representative, is keeping a close eye on the apparently increasing shortage of manpower. Because of increased construction activity, the need for additional carpenters and bricklayers has become more urgent. Emphasis is being placed on increasing apprentice-training programs.

Rise in demand for builders from the public has been attributed to a large extent to the un-freezing of rent controls. Persons facing a rise in "easy-to-take" rents have become interested in home ownership. Thus de-control may be the answer to an eventually stabilized market. People who logically can afford to build, will do so, and thereby open up rental units to people who are normally classed as renters but are being forced to build in order to obtain shelter.

## New Hampshire Home Builders Elect Officials

The Home Builders Association recently elected, on a permanent status, the officers and directors temporarily appointed at its organization meeting a month earlier. The following were named to serve until the first meeting of 1948: president, Romeo P. Morin; vice president, David W. Davidson; secretary-treasurer, Eugene L. Tougas. In addition, Albert W. Lacroix, Philibert Paquette, Lionel J. Provancher, Harry C.

Jones, Harry R. Sundeen, Joseph Dallaire and Leon A. Keyser were elected to the board of directors.

Following the election a membership committee was appointed by the president, dues were established at \$25 annually, and there was a general discussion of local problems and conditions affecting the construction of housing for veterans and others in New Hampshire. Several new members were also taken into membership.



**SEATED (l. to r.): Eugene L. Tougas, Romeo P. Morin, Lionel J. Provancher; (standing) Paul Harvey, David W. Davidson, Philibert Paquette, Joseph Dallaire, Edward Pellerin.**



## Atlanta Home Builders Inaugurate Local Slum Clearance Program

With the recent relaxation of government controls and with first prospects of "business as usual" now at hand, home builders of Atlanta have thought it well to stop and analyze the home building supply and demand in their community.

Careful study of Atlanta's housing demand indicated there are 149,000 families living in Atlanta today. On the supply side, there are 134,000 dwelling units which reveals a housing shortage of 15,000 units. There were approximately 7,000 dwelling units completed during 1946, and a substantial increase in this amount is expected for 1947. However, even though the home builders of Atlanta do reach their own goal, the fact that the Chamber of Commerce expects 6,000 new families to move to Atlanta during 1947, greatly reduces the builders prospects of meeting the housing needs.

To further complicate the situation in Atlanta, there are some 35,000 dwellings that might be termed "sub-standard." Approximately 75 per cent of these dwellings can be repaired and put in decent, livable condition but at least 25 per cent are blighted slum areas unfit for human habitation. In a strong effort to combat this, the "Citizens Better Housing Forum" has been formed.



ROY C. TIPPIN

William M. Todd, Commander of Atlanta Post No. 1, American Legion, has been named chairman of the forum and Roy C. Tippin, secretary of the Home Builders Association of Atlanta, will be secretary of the group.

The personnel of the "Citizens Better Housing Forum" will be made up of one representative from each of the more than 250 civic clubs and organizations in the city of Atlanta.

The first action of the "Citizens Better Housing Forum" was to arrange a tour of the blighted areas for its executive board. This executive group is made up of individuals representing organizations having all-over cross section membership.

Already the city council of Atlanta have come to the support of the slum clearance program and have passed new ordinances putting teeth in the drive. The new measure empowers the Building Inspector and other city officials to force landlords to rehabilitate dwelling properties regarded as hazardous to life, health, morals or the general welfare of occupants or to the City of Atlanta.

## Cortright's Column

By Frank W. Cortright

Executive Vice-President, National Association of Home Builders of the United States



**Builders are** accelerating production.

That's what preliminary reports from a survey by NAHB reveal.

**The WASHINGTON LETTER** recently asked home builders to send replies to thirteen questions concerning problems they face and plans they contemplate since the Housing and Rent Act of 1947 went into effect.

The answers furnish a composite picture of the situation today as leaders in the home construction field react to it.

**Builders were** about equally divided as to whether they may yet safely give the "all clear" signal for maximum production. The majority feel that the veterans' market is not sufficient to warrant it and, this being the case, many feel that as long as veterans' preference is in effect it would be financially unwise for them to take unnecessary risks.

Low appraisals of the Veterans Administration was given as the chief impediment holding back former GI's from investment in home ownership. Those surveyed charged that VA appraisals are below current construction costs and that as a result veterans are not able to buy the homes now being produced. Another complaint frequently voiced against VA was: "Processing too slow."

**On the optimistic side,** builders agreed that the supply of building materials is now generally adequate, but there was sharp disagreement as to whether building costs have levelled off or whether the productivity of labor has improved. Gypsum board, rock lath and plumbing fixtures were the items most often cited whose supply still seemed to be in the critical category in some sections.

One California home builder stated his building costs had dropped fifteen per cent. Others felt that they appear to be levelling off gradually, while the rest asserted they had not levelled off at all and, in a few cases were slowly rising again. Most of the replies gave their average construction period as around eight months, although some estimated their completion time as considerably lower.

**Regarding improvement** in the productivity of labor, about half the builders who have been polled to date stated their belief that labor is now giving a better day's work. Many stressed, however, that any improvement which may have been shown has been very slight. Others sensed, on the other hand, that labor's productivity has been improving progressively.

But serious labor shortages still exist, the survey shows. Demand still outweighs supply here. The shortage of carpenters and brick layers, plasterers and plumbers, is still acute. Reports also indicate that there are also too few electrical workers, painters and pick-and-shovel men in some parts of the country.

**While a builder from Chicago** and one in California wrote they planned to double their present construction programs, the majority plan to proceed more cautiously. One San Francisco builder wrote: "Passage of the Housing and Rent Act of 1947 will greatly accelerate our building program because it is now bringing in many renters who are fearful of rent increases and are desirous of purchasing a home."

Answers from most of the home builders indicate that the present high volume of home construction will continue, but several members of the Association indicated they planned making no new starts in the next six months with the present set-up being as it is.

**The average sales price** will be around \$9,000, although some new houses will be built to sell for as low as \$5,600. Rentals will be from \$55 up with \$70 as an average.

Mortgage financing of veterans' homes to date seems to have been affected comparatively little by the recent elimination of the RFC secondary market for GI loans. A few builders expressed themselves very strongly about this, however, and their answers ranged from "closed the doors to G.I. finance" to "may stop all work."



## Carr and Cortright Talk Low Cost Housing



LEFT to right: Edward R. Carr, NAHB president; Frank W. Cortright, NAHB executive vice president; Edward M. Sills, of the Building Contractors' Association of California.

President Edward Carr and Executive Vice President Frank Cortright of NAHB early in August pledged the cooperation of builders in developing a super program of critically needed low cost housing for Los Angeles without resorting to public housing. The pledge was made to Mayor Fletcher Bowron while the two NAHB officers were visiting Los Angeles.

Mr. Carr applauded the mayor's desire to solve the city's low cost housing requirements by private enterprise rather than by government methods. Mayor Bowron, however, informed Lawrence B. Gibbs, president of the Los Angeles Home Builders Institute, and Messrs. Carr and Cortright at a special conference that if private enterprise and local government cannot solve the critical low cost housing problem of his city, some form of public housing will be necessary to reduce the needs of what the mayor called the fastest expanding city in America. Mr. Carr informed Mayor Bowron that a comprehensive survey now in the planning stage should result in some answers for the solution of low cost housing problems.

Following the conference with the mayor, Carr and Cortright were taken on a tour of several large developments representing the 35,000 living units now being built in Los Angeles County.

In a statement to the press, Mr. Carr, answering a question concerning a probable drop in building costs, said that eighty per cent of the cost of building is represented by on-site and off-site labor, and that since labor scales probably would not drop, neither would building costs drop fast or far. There will be a gradual reduction, said Carr, due to greater production by labor, less time needed to complete houses, and perhaps some reduction in material prices. Any house built today by a competent builder, continued Carr, is a good buy and will hold its value.

Mr. Carr admitted that there might be a temporary slump, but no recession. With incomes up 119 per cent over prewar, and living costs up only 57 per cent, there is no fundamental basis for a real depression.

## Denver Association Plans Home Show Week of October 17-25

Plans for the Home Show to be sponsored by the Denver Association of Home Builders, in conjunction with the firm of Daly, Tufts, Black and Fields, during the week, October 17-25, are progressing rapidly, according to Stanley C. Brandenburg, executive vice president of the association.

The Home Show committee, appointed by President Ray W. Odell, consists of Keppel Brierly, chairman; C. O. (Bob) Robertson, J. H. Morris, Arthur W. Decker and Gordon N. King.

## Dallas Builders Stage Huge Watermelon Party

Taking time out from the construction of nearly five thousand homes, the Dallas Home Builders staged a huge watermelon party at Home Builders' Roost, overlooking White Rock Lake. Wilson Brown, local builder, chairman of the program committee, supervised the big party August 29.

The refreshment committee bought a truck of luscious melons and put them in cold storage early in August. A local night club furnished professional entertainment for the occasion, which was followed by an old-fashioned square dance, with caller and fiddle band.

The Dallas Chapter has a very busy fall schedule ahead, with regular weekly buffet dinners, a state convention, and the promised visit of Raymond Foley early in October.

## Rhode Island Home Builders Commended by FHA Director

The Rhode Island Home Builders Association recently received a letter from George F. Mackie, State Director of FHA for Rhode Island, congratulating them on their great contribution to home building in that state. Mr. Mackie wrote in part:

"Home Builders of Rhode Island have made a remarkable contribution to the State housing program. Those of us in the Federal Housing Administration who have had the opportunity of close association with them know they have met the crises of the war years and the immediate postwar period with determination and resourcefulness.

## Seattle Home Builders Work to Correct False Price-Thinking

A campaign of public information, designed to sell new homes at the present price level, is appearing in the Seattle, Wash., newspapers in full-page and half-page advertising space, signed by all factors of the local home building industry.

This joint campaign, supported by the operative builders, realtors, building material retailers and producers, architects, mortgage bankers and labor unions, opened with a full page in the Sunday papers of June 29 and is set to continue for 15 weeks.

The theme of the campaign is the true value to the family of the well-built home of today, plus the fact that these good homes, produced by Seattle's Home Building Industry, are fairly priced in today's market and are not likely to go lower.



LEW HYKES

Active in working up this campaign have been members of the Seattle Master Builders Association including President Lew Hykes, Albert Balch, C. E. Betcher, Frank R. McAbee, V. O. Stringfellow and V. H. Dent; Paul Ratliffe and Lon Forbush for the Real Estate Board; Ward Kief and Albert LaPierre for the mortgage bankers; W. C. Bell and Herbert Blackstock for the retail dealers; Clyde Grainger for the architects and Harry Carr for the Building Trades Council. A fund of up to \$20,000 is being contributed to the campaign.

Each of the ads in the series presents timely information for house-hungry GI's and others on the present homebuilding situation, the future outlook for real estate values in the Seattle area, current costs and price trends.

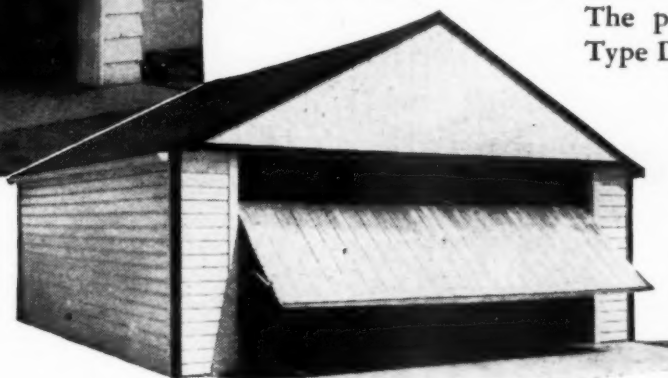
# BERRY—Always The Leader

## WITH NEW *and* IMPROVED GARAGE DOORS



### CLEARANCES

Single Track (8' x 7')  
Side: 2½"; Head: 2".  
Double Track (16' x 7')  
Side: 3¼"; Head: 2".



For the best in garage door engineering—for the latest in garage door design—it's BERRY every time! The new, improved Berry Doors are more attractive to the eye . . . more sturdily constructed . . . and easier than ever to install and operate. A choice of several sizes and styles is available.

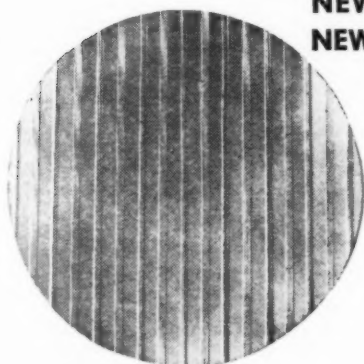
### TRACK TYPE DOORS . . . SINGLE OR DOUBLE

The popularity of the Berry Track Type Door has been further enhanced by the introduction of a new single span double door. Light as a feather to operate because of its perfect balance, this 16' x 7' aluminum door tilts up and rolls completely into the garage, smoothly and quietly. Heavy bracing guarantees the utmost rigidity.

### NEW MODEL CANOPY DOORS NOW AVAILABLE for Single or Multiple Installation

Numerous engineering changes have improved and strengthened the Berry 8' x 7' Canopy Door—America's best known garage door. When used in multiple installations, doors can be opened individually as desired, yet the freedom of a 16' to 40' opening without posts is always available without the disadvantage of a heavy cumbersome door.

### NEW FACE STYLING MEANS NEW BEAUTY—NEW STRENGTH



A new type of face grooving gives the Berry Door a smoother, more distinctive appearance . . . and at the same time adds to its strength and rigidity.



### REMEMBER — ALUMINUM CAN'T RUST, ROT OR DETERIORATE

Aluminum is light and tough . . . provides strength without weight . . . needs no paint . . . permits better, safer garage door design.

BERRY—America's



No. 1 Garage Door

# BERRY DOOR CORPORATION

WAYNE, MICHIGAN

# The ASBESTOS shingle that's

# *easy to sell..*

*American Colonial* is the most popular asbestos roofing shingle Johns-Manville has ever developed.



Note the staggered edges and beautiful weathered appearance of American Colonial Asbestos Roofing Shingles.

## Attractive—colorful—low in cost!

Because of their new beauty and ease of application, demand for these improved, fireproof roofing shingles has grown tremendously.

Backed by the Johns-Manville name, these shingles are easier for you to sell.

Overwhelming consumer acceptance is being constantly developed by one of the most effective advertising campaigns in the industry—the Johns-Manville Radio Program, "Bill Henry and the News."

## Built to last 35 years PLUS

Thousands of J-M Asbestos Shingles have been in service 35 years and more. They're still as fireproof, rotproof, and weatherproof as the day they were applied. No signs they won't last another 35 years or more! That's why we say American Colonial Asbestos Shingles last 35 years PLUS.

Permanent as stone, the American Colonial costs the home owner less per year of service than *any other roof*.

Get the facts about American Colonials. Write for new full-color brochure, AS-85A, showing the many pleasing colors and blends. Address: Johns-Manville, Box 290, New York 16, N. Y.

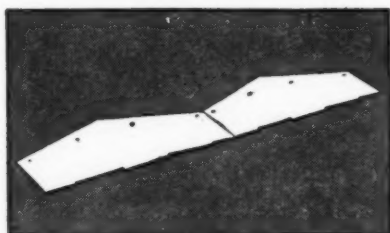


# Johns-Manville

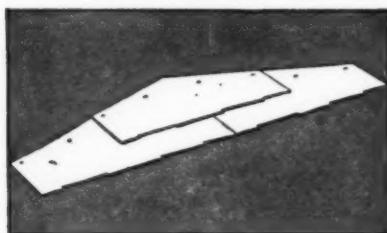


# ..easy to apply!

Study these pictures. They show how easily these shingles are applied.



**1. APPLIED LIKE ANY STRIP SHINGLE**—Each American Colonial is an asbestos strip, equivalent to 5 ordinary shingles.



**2. SELF-SPACING FEATURE SAVES TIME**—Second course shingles are lined up by placing the shoulders over the points on the preceding course.



**3. AUTOMATIC ALIGNMENT**—No chalk lines necessary, no delays measuring courses. Any roofer could actually lay American Colonial Shingles blindfolded.



**4. EASY TO HANDLE**—Bundles weigh about the same as asphalt strips. Use only 80 pieces per square. Only 4 nails per shingle, in pre-punched holes.




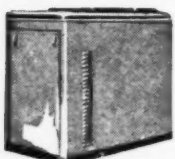



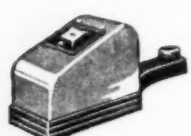


**5. EASILY APPLIED ON RIDGES**—Special Hip and Ridge shingles supplied in exactly the same textured grain, the same beautiful, weathered appearance and colors as the main roof shingles.



**6. CUTTER SPEEDS APPLICATION**—When shingles must be cut to fit around valleys, dormers, along the rake, etc., a shingle cutter does the job easily, quickly—right on the roof.

*"American Colonial"* **Asbestos Roofs**



 Winter Air Conditioner. Oil-fired.	 Vapor Flame Oil Furnace.	 Year-Around Air Conditioner. Heats in winter—cools in summer.
 Boilers. Gas and oil-fired.	 Winter Air Conditioner. Gas-fired.	 Conversion Oil Burners. For your present furnace or boiler.
 Stokers. Hopper and bin feed models for bituminous or anthracite coal.	 Water Heaters. Automatic oil-fired.	 Coal Furnace.

**Products Which Will Give Your New Homes Greater Value!**

It pays to choose *name* products when you buy heating. Equipment of established reputation gives new homes greater sales value. That's why it's good business to install Chrysler Airtemp automatic heating in the homes you build.

With Chrysler Airtemp you can have the type of heating you desire—warm air, steam or hot water from gas, oil or coal. You can be sure that each unit is right up to the minute in modern design and styling. They're products of the famous

engineering and mass production skill of Chrysler Corporation.

Chrysler Airtemp has a heating unit for homes large and small. Some are complete winter air conditioners. They filter, humidify and circulate the air as well as heating it. Head of the line is a combination year-round air conditioner. It heats and cools.

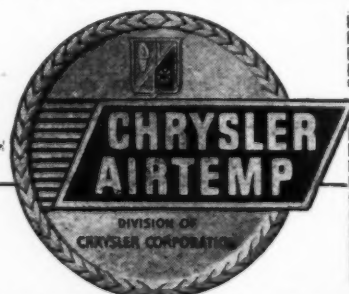
Builders are invited to mail the coupon below for complete details of these many outstanding Chrysler Airtemp products.

**AIRTEMP DIVISION OF CHRYSLER CORPORATION, Dayton 1, Ohio • In Canada: Therm-O-Rite Products, Ltd., Toronto**

*Automatically Yours*

**BETTER HOME HEATING AND AIR  
CONDITIONING PRODUCTS**

**HEATING • AIR CONDITIONING • COMMERCIAL REFRIGERATION**



**MAIL THIS NOW FOR DETAILS**

Please send me complete details on your heating products listed below: (AB-1)

Name \_\_\_\_\_  
 Address \_\_\_\_\_  
 City \_\_\_\_\_ State \_\_\_\_\_  
 Product or products \_\_\_\_\_



## A ROOFING CUSTOMER FEELS PROUDER OF A CERTAIN-TEED ROOF

- ★ A home owner feels proud enough of any new roof.
- ★ But when he can tell his friends it is a new Certain-teed roof, he knows they will fully appreciate the full measure of value he has received.
- ★ A roofing customer's extra pride in a new Certain-teed roof is an extra value to your business.

BUILD ON

**CERTAIN-TEED** THE WELL-KNOWN NAME

CERTAIN-TEED PRODUCTS CORPORATION • 120 S. LA SALLE STREET • CHICAGO 3, ILLINOIS



**It's True! You can build this Cape Cod  
or Any GENERAL PLYWOOD HOME  
*in only 2 weeks!***



**Many Conventional Models  
of GENERAL PLYWOOD HOMES  
available for delivery now!**

There are many models of General Plywood Homes now available—including the tremendously popular Cape Cod shown above—and you can actually complete any one of them in just two weeks from the laying of the foundation! And fast completion of homes means fast turnover of investment for you!

This is possible because General Plywood takes all the "ifs" out of home building for you. You face no delay from shortage of structural materials. You can quickly build fine quality,

real value homes that people want now. All General Plywood Homes are permanent, attractive, sell at reasonable prices and allow you substantial profits. The construction details of General Plywood Homes meet or exceed all requirements of the FHA, and are acceptable for G. I. loans.

#### **DEALERSHIPS AVAILABLE!**

*NOTICE! Members of the building and construction industry are invited to write the address below concerning territories still available to dealers.*

**GENERAL  
PLYWOOD**  
CORPORATION  
LOUISVILLE 12, KENTUCKY

General Plywood Corporation  
Box A-9, Louisville 12, Kentucky

Please send me full details of General Plywood Homes.

Name.....

Address.....

City.....County.....State.....

Please check: ( ) Architect ( ) Builder ( ) Contractor  
Individual Desiring Home ( )


# STAINLESS STEEL



*You're Looking  
at Her Dream*

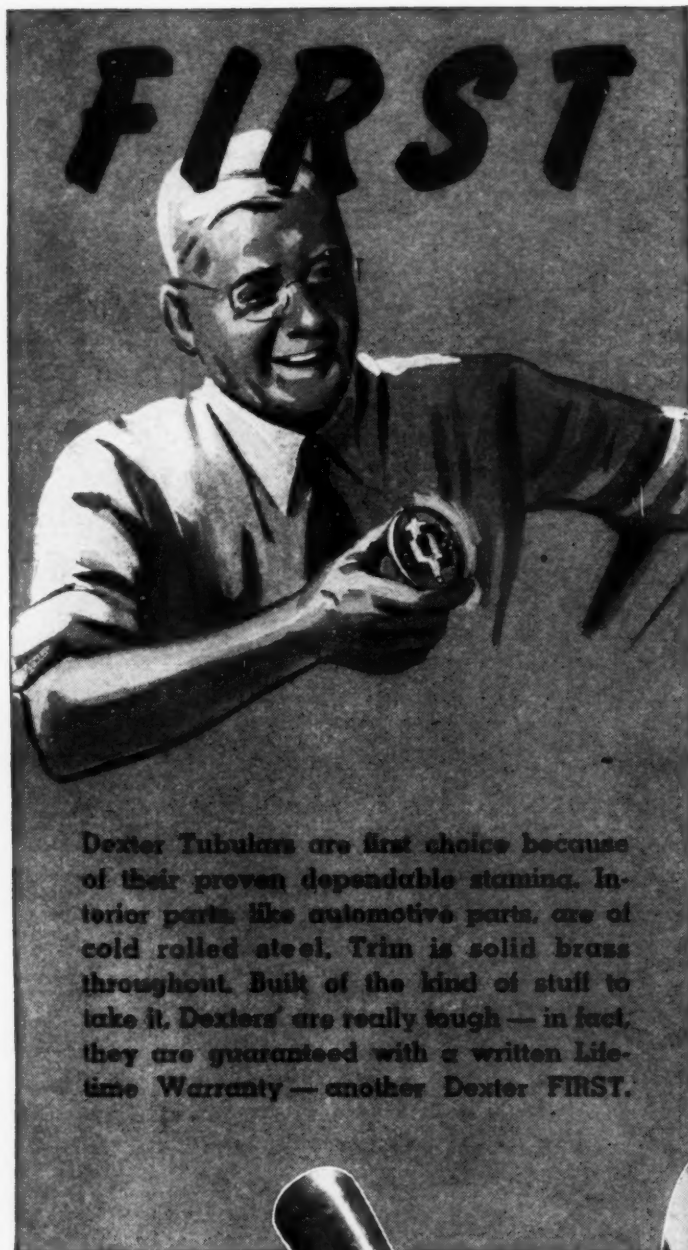
What is a woman's dream kitchen made of? All sorts of time-saving gadgets to be sure, but it must be a place of beauty as well — something to show off to friends. That's why housewives like sinks and cabinet tops, as well as pots and pans, of stainless steel. They like this bright metal because it has lasting beauty; its smooth surface is easy to clean and can't chip or peel. For ideas on how to use stainless steel, write to Department B-9 for our monthly publication ELECTROMET REVIEW.

**ELECTRO METALLURGICAL COMPANY**

Unit of Union Carbide and Carbon Corporation  
30 East 42nd Street  New York 17, N. Y.

**PRODUCERS OF ALLOYS THAT MAKE STEEL STAINLESS**

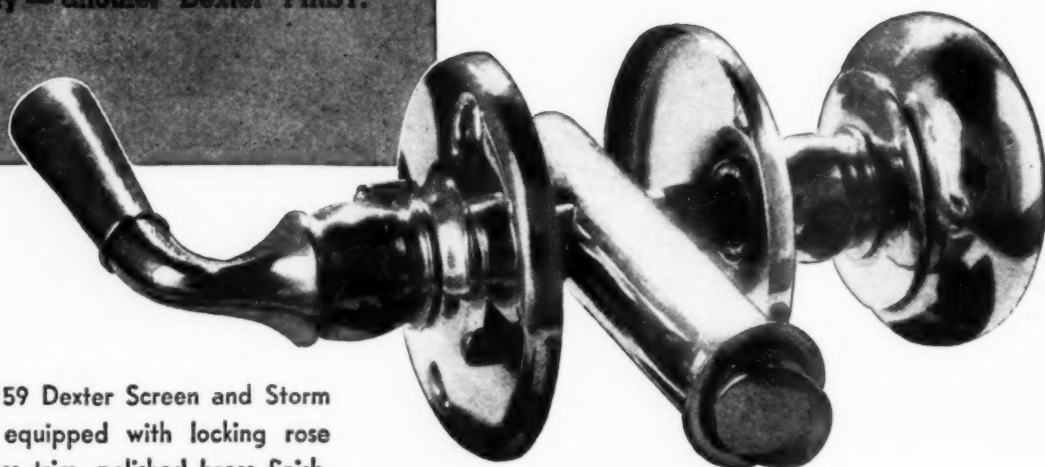
**Beautiful Enduring Strong Tough**



Dexter Tubulars are first choice because of their proven dependable staming. Interior parts, like automotive parts, are of cold rolled steel. Trim is solid brass throughout. Built of the kind of stuff to take it. Dexters are really tough — in fact, they are guaranteed with a written Life-time Warranty — another Dexter FIRST.

## DEXTER TUBULARS

*are built of*  
**Cold Rolled Steel**  
*and*  
**Solid Brass**



Catalog No. 1159 Dexter Screen and Storm Door Latchset equipped with locking rose inside, solid brass trim, polished brass finish.

**NATIONAL BRASS COMPANY, Mfrs.**  
**Grand Rapids, Michigan**

**MAKERS OF BUILDERS, CABINET, SCREEN DOOR  
 AND SHELF HARDWARE**





*Compare The Cost*

This consumer advertising faces the challenge squarely—appearing in the September 13th "Saturday Evening Post" and September "Better Homes & Gardens." Remember, the base price of aluminum is 30% below pre-war!



## "Better Homes & Gardens" popular house No. 705

...with brick siding and wood shingles, as originally presented. This Five Star Home has 7 rooms, 4 bedrooms. Design copyrighted. Reynolds has available a limited quantity of a special "BETTER HOMES & GARDENS" folder, showing floor plans and featuring aluminum in the list of materials. Write today to address below.



**NOW... build it better at less cost with**  
**REYNOLDS *Lifetime* ALUMINUM CLAPBOARD SIDING AND SHINGLES**

Get these advantages for no more money:  
**Fire-Proof ... Rust-Proof ... Termite-Proof**  
**...plus Radiant Heat Insulation**

According to national averages compiled by a recognized authority,\* it would actually cost you less to build this house with Reynolds Lifetime Aluminum Shingles and painted Clapboard Siding than it would with stained wood shingles and the original brick siding. And look at all the advantages you get with aluminum!

Lifetime permanence...protection against fire, rust, rot and termites. And greater comfort...because aluminum reflects radiant

heat. In summer this roofing and siding throws off the sun load...won't store up heat...so your house stays cooler. In winter it reflects interior heat back from the roof and walls...so you keep warmer, with less fuel.

Note that the cost comparison made here includes painting your aluminum clapboard...cleaning, then primer coat and second coat. But you can eliminate this if you like...and save more money. Aluminum needs no paint. It weathers naturally to an attractive

grey-white...looks better year after year without any maintenance.

This modern roofing and siding is immediately available, in any quantity you need. So talk to your architect, your builder. They will like the way both clapboards and shingles fit together, self-aligning, weathertight, handsome. Show them this ad. Write for your booklet on House No. 705, as well as for detailed product literature. Address: Reynolds Metals Company, Building Products Division, Louisville 1, Kentucky.

\*Construction Survey Co., Lockwood Building, New York, N. Y.



**CONSULT YOUR LOCAL BUILDING SUPPLIES DEALER FOR IMMEDIATE DELIVERY**  
Hundreds of millions of square feet already delivered

ALUMINUM SHINGLES • CLAPBOARD SIDING • SHEET ROOFING AND SIDING • STUDS • TRUSSES • WINDOWS • GARAGE DOORS • REFLECTIVE INSULATION • UTILITY BUILDINGS • ALUMINUM ROOFS

*Compare The Advantages!*

**REYNOLDS *Lifetime* ALUMINUM BUILDING PRODUCTS**

For 100% performance use only the nails recommended by the manufacturer



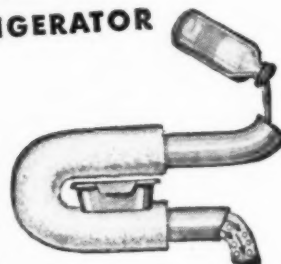
### LIQUIDS COOL ON EVAPORATION

When you pour alcohol into the palm of your hand and blow on it, you know what happens. You experience a cooling sensation. That's because liquids remove heat from the surrounding area as they evaporate. You can prove it with a thermometer. This principle of cooling by evaporation is used by both gas and electric refrigerators. But there's a big difference in application. You'll see why the Gas Refrigerator's method is superior by studying the following illustrations.

# SEE HOW THE FREEZES

## SUPPOSE YOU MADE A SIMPLE REFRIGERATOR

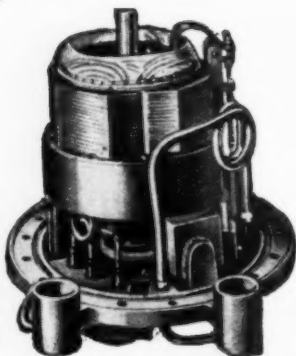
All that's necessary would be to pour continuous streams of ammonia (or any other refrigerant) and air through a



bent metal tube. Evaporation will take place on the inside of the tube, causing the outside to cool. Thus, you have simple refrigeration. The evaporated ammonia goes off in vapor gas. However, in practical refrigeration, vapor gas cannot be allowed to escape and go to waste. It must be recovered and used again.

## THERE ARE TWO WAYS OF CHANGING VAPOR BACK TO LIQUID FOR RE-USE

In an electrical refrigerator, the vapor is compressed back into liquid by the use of machinery. This machinery, or moving parts, includes a motor, a pump, valves, pistons, and a compressor.



But in the Gas Refrigerator, the vapor is changed back to a liquid by first being passed through water. The water absorbs the ammonia. The mixture is then boiled by a tiny gas flame. The ammonia is driven off in the form of hot ammonia vapor. Cooled by passing through pipes, it condenses again into a liquid. This entire operation has been performed without the use of a single moving part.



STAYS SILENT  
LASTS LONGER

# Servel

# GAS REFRIGERATOR WITH NO MOVING PARTS

● You've heard many times that the Servel Gas Refrigerator has a simpler, basically different method of operation. Now you can see why Servel is different . . . why Servel can operate without making a sound and freeze without using a single moving part. The chart on the left tells the story.

Servel doesn't need a motor . . . pistons, pumps, valves, and compressors have no place in the Gas Refrigerator. There's nothing in the freezing system to make annoying sounds like the humming and clicking so prevalent among mechanical refrigerators. A tiny gas flame does all the work.

Today—amid the many noises of this modern

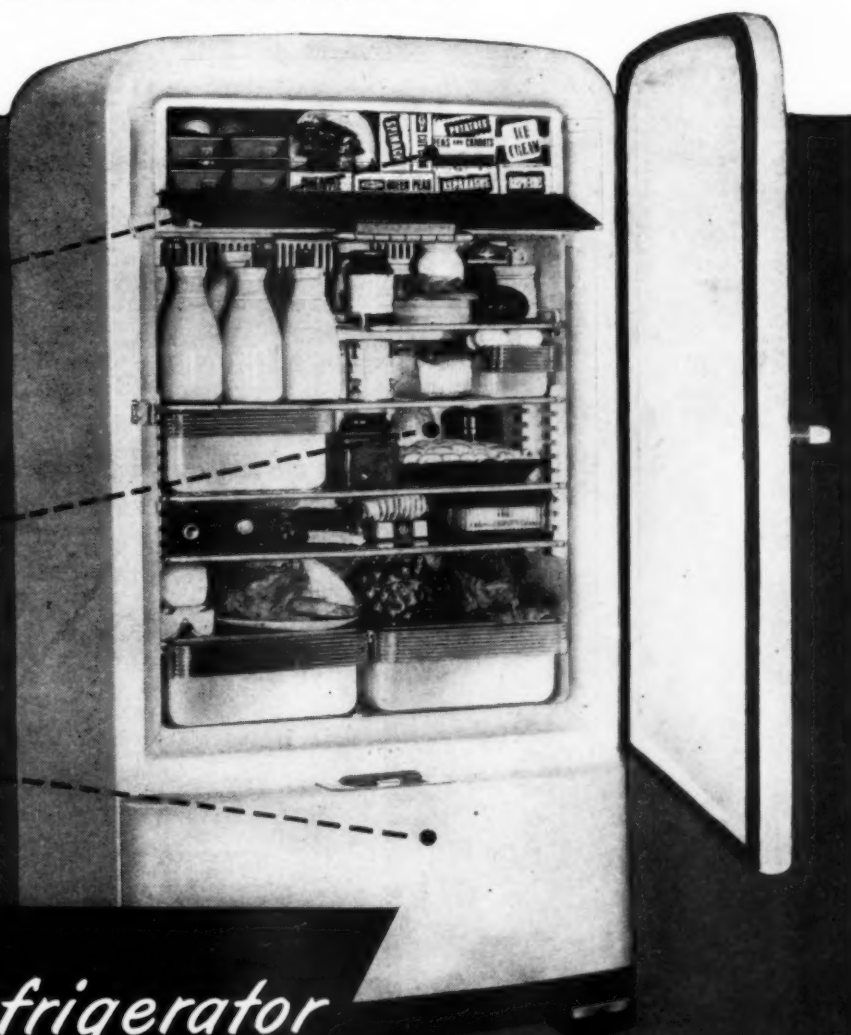
mechanical world—people are seeking silence : : : especially for their homes. When the housing shortage becomes less acute, many prospective tenants and buyers will ask for homes that are noise-free. That's why more architects and builders are specifying Servel when they order new refrigerators.

There's another reason, too. Users profit from Servel's long life and year-after-year operation economy. And you profit from its lasting dependability and low overhead costs. Repair and replacement bills remain exceptionally low. For complete information, consult Sweet's catalog . . . or write to Servel, Inc., Evansville 20, Indiana.

Big Frozen  
Food  
Compartment

Moist Cold  
Dry Cold

No Noise  
No Wear



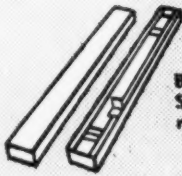
*The GAS Refrigerator*



## THE A.B.C. of ATLAS SAVINGS.



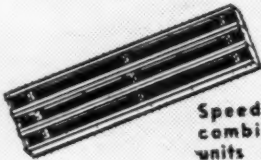
Use Atlas  
Speed Forms  
for founda-  
tions, floors and  
walls.



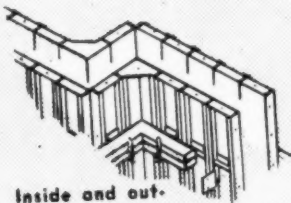
Basic unit, the  
Speed Panel,  
rugged steel.



Ingenious  
quick-action  
wedge bolt, for  
rapid joining or  
disassembly.



Speed panels  
combine into  
units of three  
or more for  
quick handling.



Inside and out-  
side corners  
available, also  
special panels.



Easy to get a  
house founda-  
tion a day —  
Similar speed  
on larger  
operations.

## FORMS ARE 60% OF POURED CONCRETE COSTS

### ATLAS WILL SAVE AS MUCH AS 50% ON FORM COSTS

### Because

- They Cut On-Site Labor in Half
- Time Savings Range up to 50%
- Figure as Low as 1¢ per sq. ft. per Use

ATLAS FORMS do what today's competi-  
tive building market demands -- re-  
duce costs.

In home, apartment, factory, bridge  
or tunnel building, Atlas Forms mean  
speed, convenience, and economy.  
They are easy and quick to erect,  
simple and fast to strip. Boxes,  
inserts, wiring, etc. easily accom-  
modated. The completed job has that  
smooth finished appearance, no knot  
holes or grain marks. Let us prove  
to you that you can save time and  
money on poured concrete construc-  
tion. Just fill in and mail the cou-  
pon below.

FOR RENT OR SALE



## IRVINGTON FORM & TANK CORPORATION

Irvington Form & Tank Corp., 43 Cedar St., New York 5, N.Y.

I am interested in reducing form costs in the following types  
of poured concrete construction:

Name .....  
Title .....  
Company .....  
Address .....



• You can't understand it unless you remember how your own wife goes on about the beautiful finishing touches of your home. That's why thousands of women flood our mails with eager inquiries about Stanley Blue Ribbon Kitchen Cabinet Hardware. So when you're handling this line you're really on the beam.

Here's interest you can turn into sturdy profits by recommending Stanley Cabinet Hardware on every *custom* job and remodeling contract you hear about. The sooner the better profit. Write today for complete information on this hardware "hit". The Stanley Works, New Britain, Conn.

Advertisements like this are telling millions of home-makers each month about Stanley Cabinet Hardware, through magazines like "Better Homes & Gardens"

# STANLEY

Trade Mark

HARDWARE · HAND TOOLS · ELECTRIC TOOLS



4222 PRISCILLA

Note self-adjusting latch mechanism



4224 NEWPORT



4220 REGENCY



4221 PRINCESS



4223 CENTURY

Full-hand and knob pulls to match, in contrasting or matching colors.



*I've got jewels in my kitchen... Stanley Style*

• "THE REAL JEWELRY in my kitchen is my gleaming Stanley Cabinet Hardware.

"Not only does it dress up the whole place with color and sparkle, but (Glory be!) it saves me a hundred pesky annoyances every day. With Stanley Cabinet Hardware, doors really latch when they're supposed to . . . release when they're supposed to . . . free and easy on the hinges. Knobs stay trim and tight. Latch handles, pulls and knobs have finger room to spare. Workable, practical, dependable!"

When you plan your kitchen or pantry plan on Stanley Cabinet Hardware. At your local dealer's. The most beautiful, practical, modestly-priced hardware ever!



PRISCILLA  
PATTERN  
Cabinet Latch

CENTURY  
PATTERN  
Cabinet Latch

Substantial, solid handles in gleaming divided with graceful chromium tipped curves add charm, sparkling red or black or black finish prove plastic.

Matching Bronze Matching Bronze Pull

The Stanley Works, New Britain, Connecticut

# STANLEY

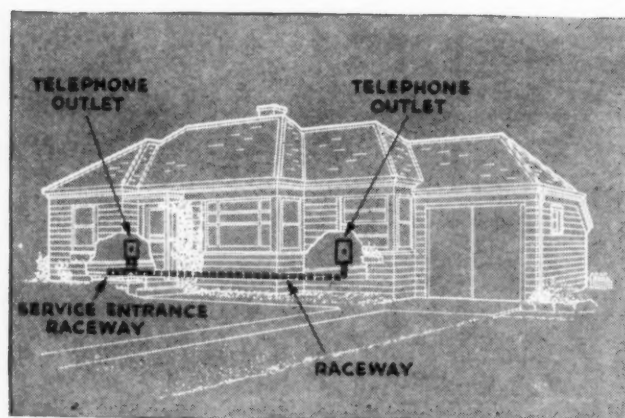
TRADE MARK

HARDWARE · HAND TOOLS · ELECTRIC TOOLS



*Bertram Weber, Architect*

## THIS SPICK-AND-SPAN MODERN HAS A RACEWAY FOR TELEPHONE WIRES



Conveniences are important in small homes as well as large. Certainly a raceway for concealing telephone wires belongs in every plan.

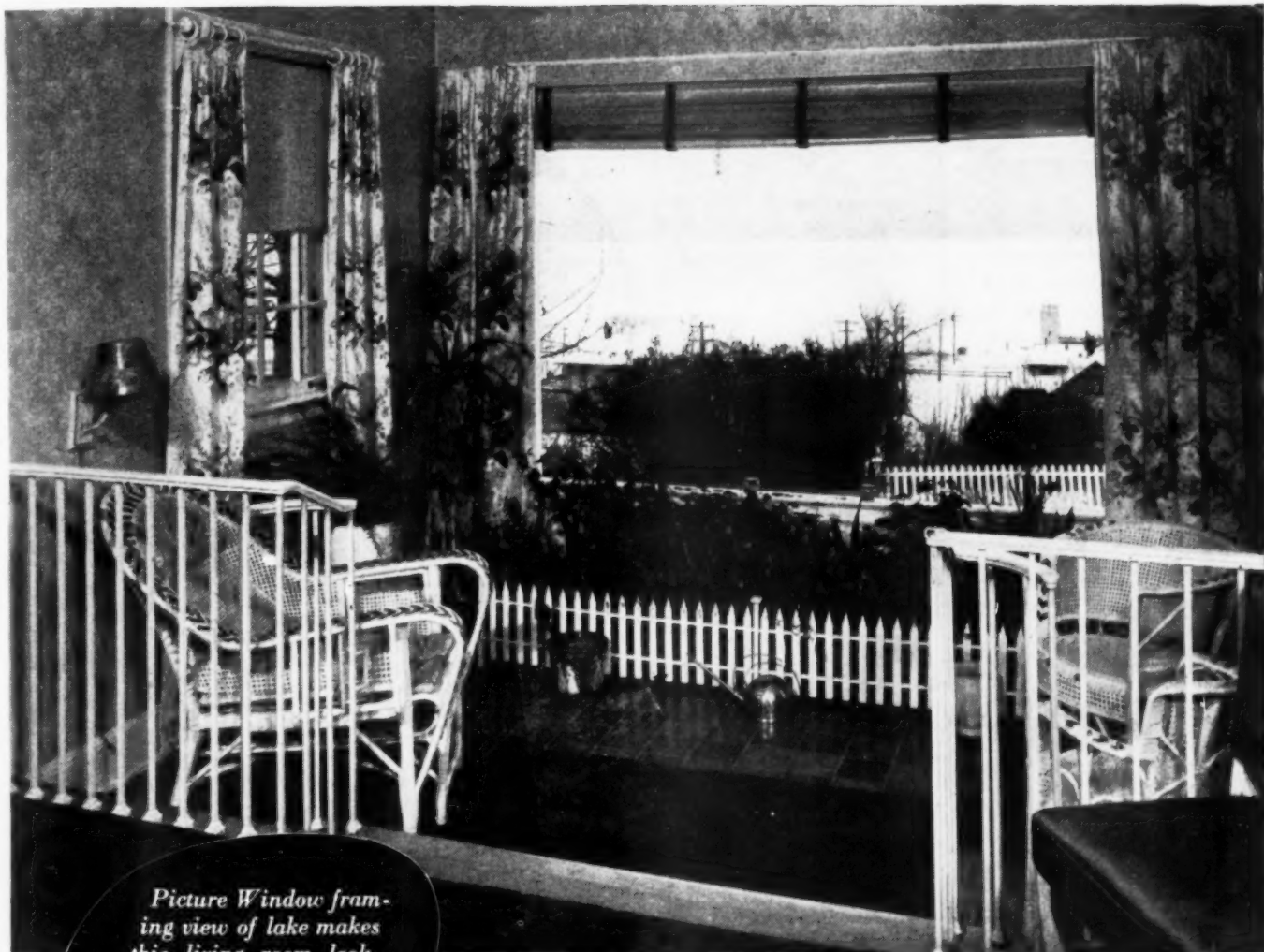
The builder can easily install telephone raceways while construction is going on. A few pieces of pipe or electrical tubing are often enough to provide a clear passage for telephone wires through outside and interior walls to convenient telephone outlet locations.

Your Bell Telephone Company will be glad to help you plan modern telephone arrangements for small as well as large homes. Just call your Telephone Business Office and ask for "Architects and Builders Service."

**BELL TELEPHONE SYSTEM**







Picture Window framing view of lake makes this living room look larger. Home of Mr. and Mrs. A. H. Marticke, Duluth, Minnesota.

## Add the spaciousness of the outdoors ... with Picture Windows of *Thermopane*

REG. U.S. PAT. OFF.

Count on a Picture Window to make a room seem larger!

It adds salability to both small homes and large ones. To mark the house as truly up to date, glaze Picture Windows with *Thermopane*—the windowpane that insulates.

The home buyer's practical mind is sure to grasp the advantages of this transparent, sealed, double-glass unit:

1. Insulation that reduces heating cost.
2. Warmer rooms in winter, more comfort the rest of the year.
3. No extra sash to put up or take down.

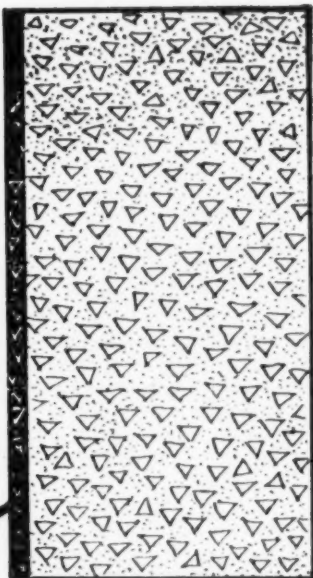
You can recommend *Thermopane* with confidence. It has been proved for years by actual use in many types of buildings—in many climates, from Alaska to Mexico. *Thermopane* is made in more than 60 standard sizes, readily adaptable for new construction or remodeling—for Picture Windows, Window Walls, double-hung wood window units and residential steel casements. Your L·O·F Distributor carries standard sizes in stock. For further information on *Thermopane*, write to Libbey-Owens-Ford Glass Company, 1897 Nicholas Building, Toledo 3, Ohio.



**LIBBEY·OWENS·FORD**  
*a Great Name in* **GLASS**

ONLY LIBBEY·OWENS·FORD  
MAKES *Thermopane*

Here is a section of regular concrete made waterproofed by applying a surface coating.



This shows how concrete—made with Medusa Waterproofed Cement—has the waterproofing built-in—all the way through.



## Inside **FACTS** on waterproofing

● Your client wants waterproofed concrete construction. To meet this need, you have two choices. One, you can use a regular cement and then apply a waterproofing surface. Two, you can use a waterproofed cement—such as Medusa Waterproofed Gray Portland Cement—and automatically build waterproofing into the concrete—saving time and labor and reducing costs.

Medusa Waterproofed Gray Portland Cement has a waterproofing compound—mixed in the cement at the mill. This waterproofing distributes itself throughout every inch of the concrete. It lines every pore, stops capillary action and water absorption, and repels all

water at the surface. The waterproofing can't chip, peel, or crack because it is built in—the lifetime Medusa way.

Used successfully for 40 years, Medusa Waterproofed Gray Portland Cement has proved its economies. Concrete—when made with this cement—is mixed and placed exactly as regular concrete, and you get lifetime waterproofing without the cost of a surface coating!

Let Medusa Waterproofed Gray Portland Cement save you time and money on your next job. Build lifetime waterproofing into walls and floors the easy way. Use Medusa Waterproofed Gray Portland Cement.

Send post card for your free copies of "Integral Waterproofing Explained" and "How To Waterproof Concrete, Stucco, and Masonry."



"FIFTY-FIVE YEARS OF CONCRETE PROGRESS"

**MEDUSA**  
**PORTLAND CEMENT COMPANY**

1002 Midland Building • Dept. "K" • Cleveland 15, Ohio

Also made by Medusa Products Company of Canada, Ltd., Paris Ontario,

# TO MEET ALL YOUR WINDOW REQUIREMENTS

offers you  
a complete line!

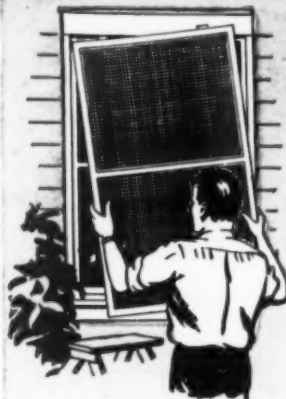


**ALWINTITE**



## DOUBLE-HUNG ALUMINUM WINDOWS

12 STOCK SIZES  
4 STYLES



## SCREENS

FULL LENGTH — TWO PIECE  
AND HALF LENGTH

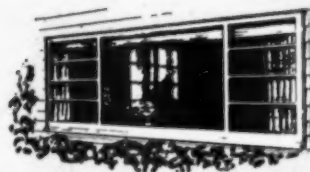
ALWINTITE aluminum screens are made in both full length, two piece and half length sections. They have strong, non-corrosive aluminum frames and are screened with aluminum wire cloth. They are available for all sizes of ALWINTITE double-hung windows.



## STORM SASH

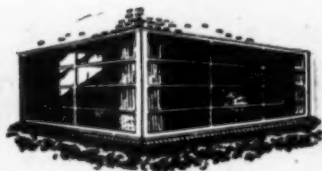
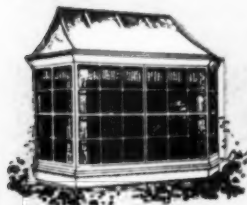
UPPER AND  
LOWER SECTIONS

ALWINTITE aluminum storm windows are completely weather-stripped. Made in two sections, they are easy to handle from the inside. Available for all sizes of ALWINTITE double-hung windows. Can be combined with half length screens.



## PANORAMA WINDOWS

ALWINTITE panorama windows can be used independently or flanked on each side by double-hung windows to provide ventilation. Will take either 1/4 plate glass or double glazing. Available in standard widths and all standard heights of ALWINTITE windows.



## MULLIONED WINDOWS

For interesting groups of 2, 3 or more windows, for corner windows and for bay windows, ALWINTITE mullions (90°, 135° and 180°) add smart, trim lines and distinctive beauty.

## BASEMENT WINDOWS



ALWINTITE basement windows, made from heavy extruded aluminum sections, are strong and sturdy. They are top hung and swing in from the bottom. Special basement window screens to fit are also available. 3 stock sizes: 2'8 7/8" x 1'2 3/4", or 1'6 3/4", or 1'10 3/4".

**ALWINTITE**

For complete information and name of your nearest dealer, write Dept. AB-9

**THE ALUMINUM WINDOW CORPORATION**

Subsidiary of General Bronze Corporation

Garden City, N. Y.

TESTED &  
APPROVED  
by the Pittsburgh  
Testing Laboratory



# aluminum WINDOWS

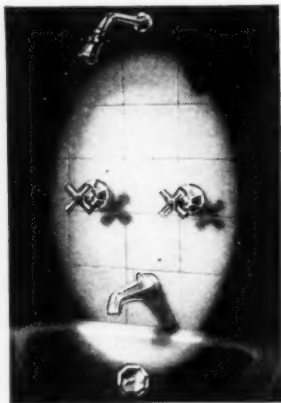
"BUILD RIGHT WITH ALWINTITE"



**only**  
**BRIGGS** *Beautyware*  
**offers a**  
**SAFETY BOTTOM BATH TUB**

For you—the future can be profit-making. Start now to capitalize on these exclusive safety and comfort features—patented safety bottom • maximum area of level bottom • wide rim seat • low sides • safety hand grip • stainproof porcelain enamel. This is another example of how Briggs engineers really work for Beautyware dealers—by giving Mr. and Mrs. Public more for less. Briggs Beautyware *is* the finest in plumbing ware.

**THE REPUBLIC "TRUART" SHOWER  
 and BATH FITTING**



Specify K3432

**with Automatic Diverter  
 Valve in Spout**

Republic—the yardstick of quality for brass goods since 1903—is the same top quality as Briggs Beautyware. The "Truart" (illustrated at left) with diverter valve and spout connection—is smart in design, with brilliant heavy chrome finish. Fine fittings for a fine bath. Another reason why Briggs Beautyware is so easy to sell—so satisfactory to your clientele.



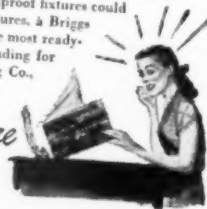
DESIGNED AND ILLUSTRATED BY BRIGGS DESIGN RESEARCH DEPT.

Made exclusively for your protection  
 ... The Briggs safety-bottom bathtub.

**BATH-ON-A-BUDGET...**

Today, it's a rare bath that costs less than it looks! But it can be done (and beautifully, too) with a dash of originality... *plus* Briggs Beautyware! For these famous porcelain-enamelled steel fixtures are unique. Streamlined to fit smartly into the smallest space. Easy to clean as only Briggs' stainproof fixtures could be. Yet with all its "custom-made" features, a Briggs Beautyware bathroom can be had on the most ready-made budget! Start yours, now—by sending for this free booklet. Briggs Manufacturing Co., 3007-1 Miller Avenue, Detroit 11, Mich.

**BRIGGS** *Beautyware*



Briggs Beautyware is telling its exclusive safety-bottom bath tub story to over 5,000,000 readers each month. Featured is the most recent of a dramatic series of four-color advertisements appearing every month in Better Homes & Gardens and American Home.

**BRIGGS** MANUFACTURING  
 COMPANY

3025 MILLER AVE., DETROIT 11, MICH.

SUBSIDIARIES:

REPUBLIC BRASS CO., CLEVELAND, OHIO  
 JOHN DOUGLAS CO., CINCINNATI, OHIO



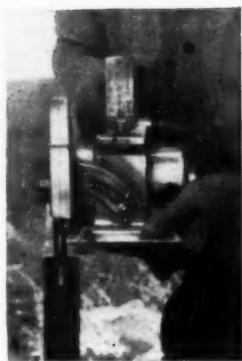
**BALANCED**  
**One-Hand Operation**  
**AT ANY ANGLE!**

## Speedmatic SAW

- Cuts straight to the line!
- No veering . . . No tipping . . . No twisting!



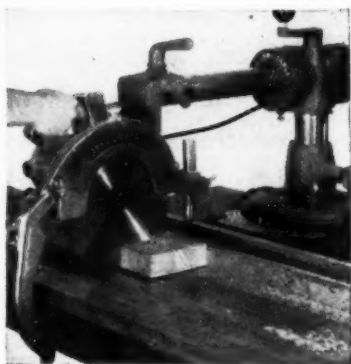
Making a mitre cut following a line can be done quickly and accurately.



Dado cutting door end conveniently and quickly for installation of weatherstripping.



Illustrating abrasive wheel in use on saw on brick wall for conduit.



You can double the utility of your saw with this radial arm attachment. Speedmatic attaches to radial arm in a few seconds without the use of tools.

**Balance . . . speed . . . versatility! These main features make Speedmatic the outstanding power saw on the market today.**

**BALANCE . . .** At *any* angle, Speedmatic is always perfectly balanced for easier operation . . . because the handle is above the center of gravity—and not behind it. This compensates for change in torque . . . permits easier, accurate sawing with minimum effort.

**SPEED . . .** Cutting edge of the blade travels better than two miles a minute! 7500 RPM! This unusual speed assures easier and faster sawing without fatigue. Practically feeds itself . . . even on unseasoned wood!

**VERSATILITY . . .** Does everything a hand-saw will do—and more—in shorter time. Does mitres . . . dado cutting . . . rip sawing on light and heavy wood . . . rough or trim. Can be used with an abrasive wheel; and by attaching a radial arm in just a few seconds, you can double the utility of the Speedmatic.

*Workers like the Speedmatic because they can always see the guide line . . . and don't have to premark a piece of wood for a square cut.*

### CUT YOUR LABOR COSTS!

See the Speedmatic at your nearest dealer. Try it. Get the feel of it. No other saw can match it! **WRITE FOR LITERATURE.**

**PORTER-CABLE**  
**MACHINE COMPANY**

1721-9 N. Salina St.

Syracuse 8, N. Y.

# Get This Blueprint Plan Book NOW!



Use this new Blueprint Plan Book as a sales tool. Use it to accurately estimate building costs. Use it for ideas on Built-Ins and ideas on garage styles that will harmonize with the exterior design treatment of the house.

12 COMPLETE BLUEPRINTS

21 HOUSE DESIGNS

GARAGES — BUILT-INS

\$2.50



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American Builder and Building Age  
Book Service Department  
30 Church Street, New York 7, N. Y.

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Enclosed is a ..... check or ..... money  
order for \$2.50 for which please send a copy  
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9-47

**A**ERICAN BUILDER'S New Blueprint Plan Book will be a valuable sales aid to you. The blueprints open up to 16½ inches by 11½ inches, suitable for accurately estimating construction costs of these attractive homes and garages. Colorful plastic binding permits it to open and stay flat while in use. You can help you customers visualize the house from all sides, as *all four elevations are shown*. Furthermore, the large size plans assist your customers to obtain a better idea of the relative sizes of rooms than is possible with ordinary "plan books." In addition, important details are shown and each plan is illustrated with a large, clear photograph of the house. In fact, no customer can fail to be impressed with the splendid material in this book. All homes in this book have been designed by nationally famous architects.



**Here's a question of  
vital importance to  
every lumber dealer!**

*... a question that means big  
business in new sidewalls and  
homere modelling ...*



## What do you know about double-coursing?

THESE FACTS ARE IMPORTANT TO YOU . . .



Unsaturated building paper is laid between Shingles and sidewall sheathing.

Outer course is laid  $\frac{1}{2}$ " lower than the under (concealed) layer, providing attractive thick appearance and shadow line.

No. 1 CERTIGRADE CEDAR SHINGLES or Cedar Shakes for outer course.

Unstained No. 2, No. 3 or Undercoursing Grade Shingles are used for the under course. Use of these inexpensive undercoursing shingles is an important economy factor. A strip of shiplap may be used as a convenient nailing guide for both under and outer courses.

Weather exposures may be varied to achieve many desirable architectural effects. Sixteen-inch shingles or shakes may be exposed up to 12" to the weather. Eighteen-inch shingles allow exposures as great as 14" to the weather.

Cedar Shingles and Shakes may be laid with either tight or spaced joints, depending on the effect desired.

Two rust-resistant, small head 5d nails per shingle or shake for outer course, applied 2" above butt-line and  $\frac{3}{4}$ " from edges. Each under-course shingle may be stapled temporarily, or held in place with one 3d nail.

• • • • •

### RED CEDAR SHINGLE BUREAU

5510 White Bldg., Seattle, Washington, or  
Metropolitan Bldg., Vancouver, B. C., Canada

Send for free "Double-Coursing" folder which explains  
how to estimate quantities and compute costs — a real  
time saver for lumber dealers and home builders.



**SPECIFY CERTIGRADE SHINGLES—FOR YOUR PROTECTION**





## For well-planned kitchens: The KOHLER Wellwin sink

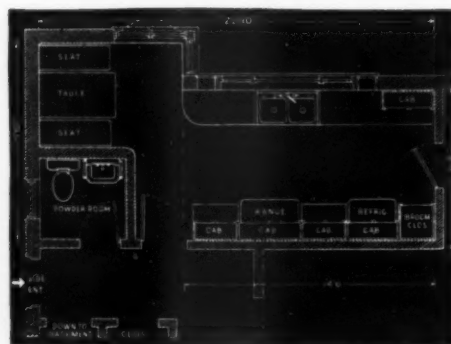
**T**HE Kohler Wellwin sink has advantages that can easily be recognized and appreciated by the average home owner. It carries immediate assurance of first quality, of which the name Kohler is a well known symbol. Its two roomy compartments make it ideal for working comfort, and it fits readily into convenient kitchen arrangements of various types.

The Wellwin has a time-tested, solid base of cast iron to which is fused the lustrous, pure white Kohler enamel. Housewives appreciate the easy-to-clean surfaces which are acid resisting and give long wear. The Edgewater

fitting with swing spout is made of durable, chromium plated brass, and mounted on a  $3\frac{1}{8}$ -inch ledge. The spray operates conveniently by pressure of a lever on the nozzle. Write for further information.

Kohler Co., Dept. N, Kohler, Wis. Established 1873.

*An example of how the Kohler Wellwin can be adapted to a modern floor plan that provides for economy of both space and effort. Size, 42 x 25 inches.*

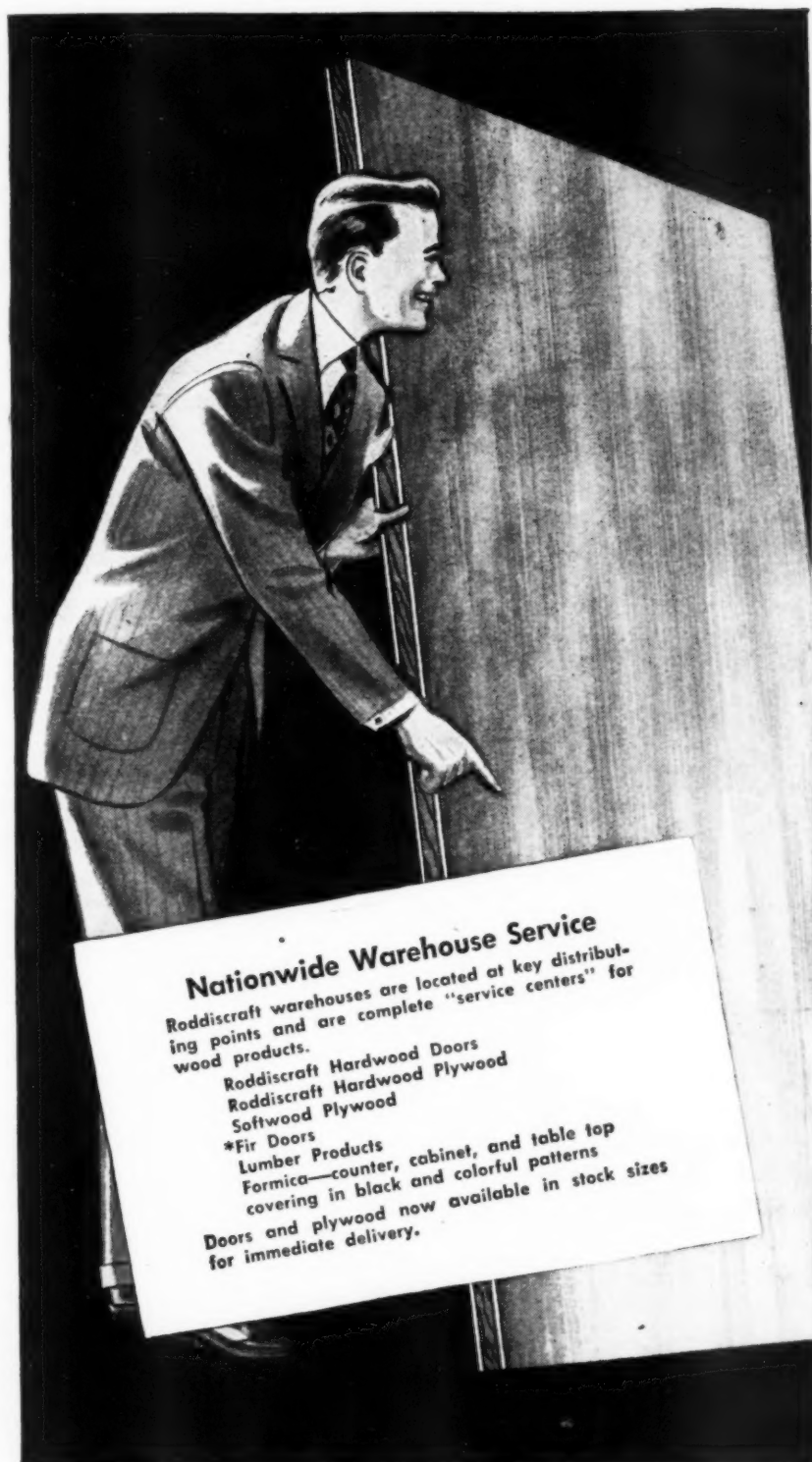


# KOHLER OF KOHLER

PLUMBING FIXTURES • HEATING EQUIPMENT • ELECTRIC PLANTS



## Ever been fooled by a beautiful face?



### Nationwide Warehouse Service

Roddiscraft warehouses are located at key distributing points and are complete "service centers" for wood products.

Roddiscraft Hardwood Doors  
Roddiscraft Hardwood Plywood  
Softwood Plywood

\*Fir Doors  
Lumber Products  
Formica—counter, cabinet, and table top  
covering in black and colorful patterns

Doors and plywood now available in stock sizes  
for immediate delivery.

## Not If You Mean the Faces on Roddiscraft Doors and Plywood

Roddiscraft quality is more than veneer deep. Outside beauty is matched by inside care and craftsmanship. Uniform, carefully laid up and glued cores, hardwood cross-banding, and face veneers are fused into a single unit combining durability and beauty.

It's Roddis all the way from our huge hardwood timber track to the finished product at our warehouses—that's why we know what's inside and out. Sell Roddis and you sell the best.

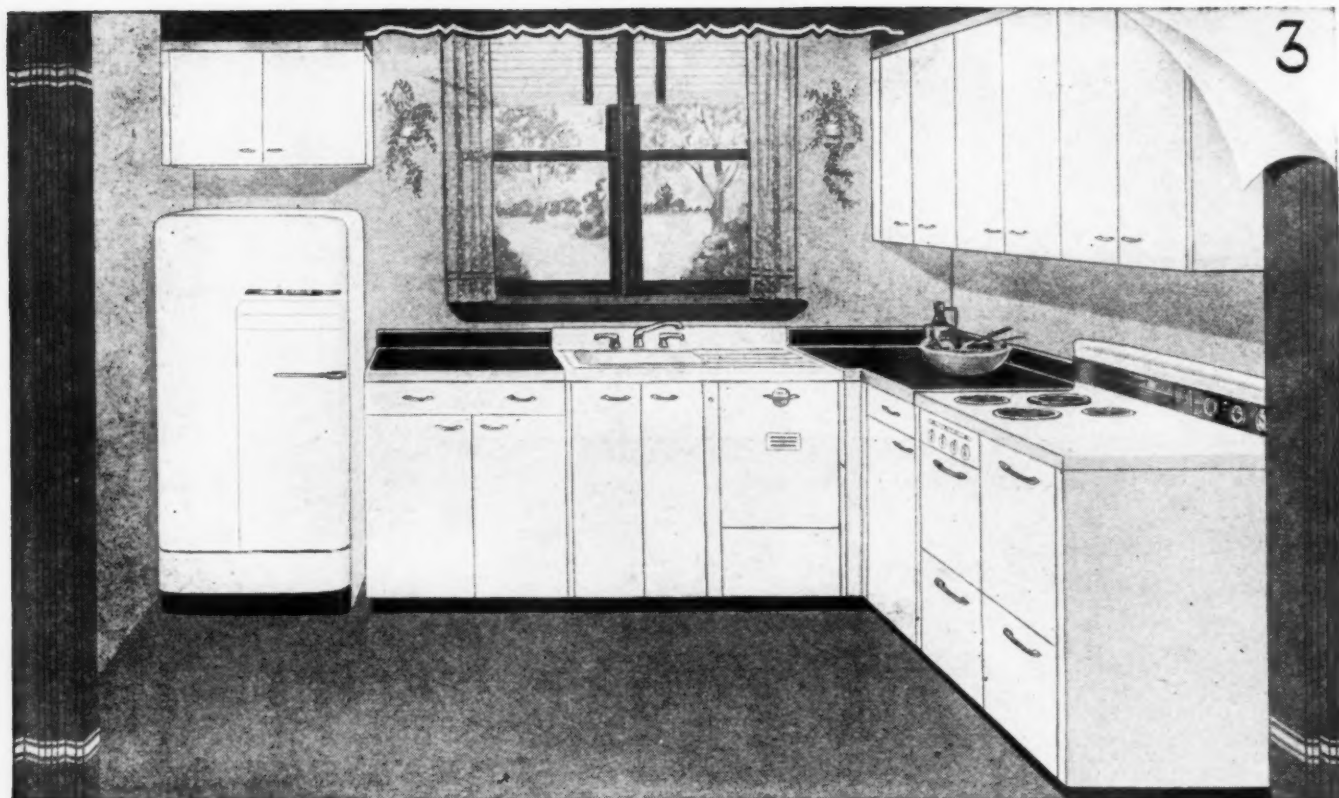
### WAREHOUSES

CAMBRIDGE 39, MASS. .... 229 Vassar St.  
\*CHICAGO 8, ILL. .... 1440 W. Cermak Road  
CINCINNATI 2, OHIO .... 457 E. Sixth St.  
\*DALLAS 10, TEXAS .... 2800 Medill St.  
DETROIT, MICH. .... 11855 E. Jefferson Ave.  
\*KANSAS CITY 8, MO. .... 2729 S. W. Blvd.  
LOUISVILLE 10, KY. .... 1201-S S. 15th St.  
LONG ISLAND CITY, NEW YORK .....  
..... Review & Greenpoint Ave.  
\*LOS ANGELES 11, CALIF. .... 2860 E. 54th St.  
MARSHFIELD, WIS. .... 115 S. Palmetto St.  
\*MILWAUKEE 8, WIS. .... 4601 W. State St.  
NEW YORK CITY, N. Y. .... 920 E. 149th St.  
\*SAN ANTONIO, TEXAS .... 727 N. Cherry St.

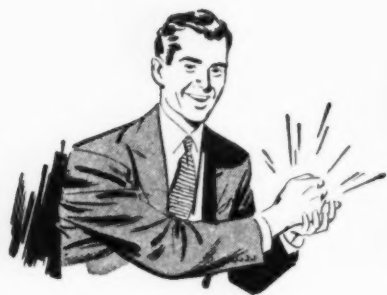
# Roddiscraft

Roddis Lumber & Veneer Co.  
MARSHFIELD, WISCONSIN





No. 3 in the important "America Picks Its Favorite Kitchen" Series



Everybody's pointing to Hotpoint  
and its inquiry-pulling "DANDELION" Kitchen

## Farsighted Builders and Architects Capitalize on this Popularity!

**H**OTPOINT kitchens like the little "Dandelion" plan pictured here receive more fan mail than a Broadway leading lady! Thousands of inquiries are received by the Hotpoint Kitchen Planning Service—and each one represents a potential client for you! Powerful national advertising has stressed that there is a plan to fit every financial and physical requirement so your field is wide open! These cheerful, convenient kitchens with their time- and labor-saving appliances can do much to add to your prestige in building homes that have the luxuries of tomorrow!

**HOTPOINT CAN HELP YOU.** The Portfolio of Personalized Kitchen Plans is prepared especially to offer helpful suggestions on kitchen planning and installation. You'll find advice from Hotpoint architects, engineers and home economists, plus handy short cuts that make your work easier and more economical. Send for your copy. It will be an invaluable aid for years to come.

**Hotpoint**  
HOTPOINT INC. A GENERAL ELECTRIC AFFILIATE



The Hotpoint Institute  
5641 West Taylor Street, Chicago 44, Illinois

Without obligation, please send me your Portfolio of Personalized Kitchen Plans. This offer available to architects, builders and contractors only — in the United States, Territories of Hawaii and Alaska.

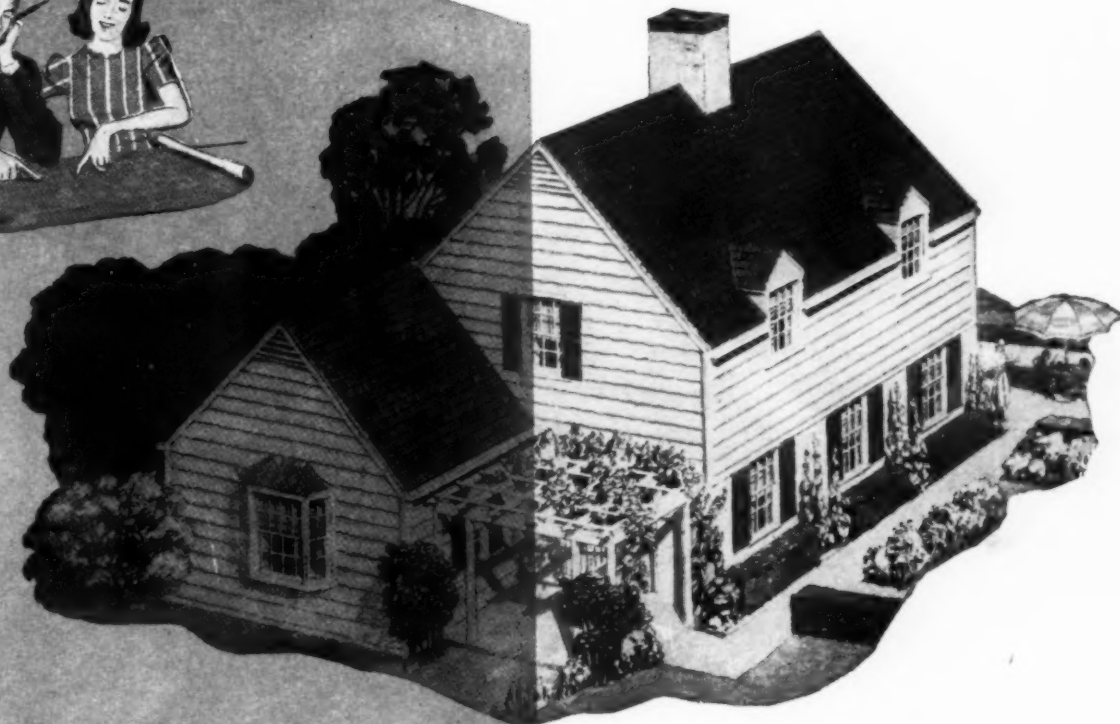
Name

Firm Name

Address

City  State

# THEIR HOME IS WHAT *You* MAKE IT



Think of the many houses you've helped build . . . of the many homes you've helped establish. In part, these homes are what *you* made them. On the quality of the materials you sell depends their comfort, their soundness, and their future value.

A pretty important responsibility, isn't it? And that's one reason why you should feature Flintkote Asbestos-Cement Sidings.

These attractive sidings are currently available in a variety of pleasing surface textures. They're equally adaptable to new construction or remodeling. They're durable, and as fire-resistant as stone. They never require paint to protect their long life.

In short, Flintkote Asbestos-Cement Sidings are a big value, with a big market.

And, like all Flintkote Building Materials, these Asbestos-Cement Sidings have behind them the experience and care-in-manufacture that comes with Flintkote's nearly half-a-century in the business.

The home owners in your community depend on you. Their homes are what *you* make them. And you can't go wrong with Flintkote.

**FLINTKOTE MAKES A COMPLETE LINE OF BUILDING MATERIALS . . .** Asphalt Shingles and Sidings • Asbestos-Cement Shingles and Sidings • Roll Roofings and Sidings • Insulated Sidings • Decorative Insulation Board • Structural Insulation Board • Fiberglas\* Insulating Wool.

\*TM Reg. U. S. Pat. Off.  
Mfd. by Owens-Corning Fiberglas Corp.



**STRAIGHT-EDGE  
TAPERTEX**



**WAVELINE  
WOODGRAIN**



The two patterns above are among the most popular in the Flintkote line of Asbestos-Cement Sidings. Specifications for both: Pieces per Square, 57; Weight per Square, 105 lbs.; Exposure, 10 1/4" x 24"; Headlap, 1 1/2".

● If you haven't already received your copy of our new 1947 catalog, write for it today. It's yours for the asking. The Flintkote Company, Building Materials Division, 30 Rockefeller Plaza, New York 20, N. Y.

**FLINTKOTE**  
*the extra years of service cost no more!*



## Another smart builder who knows "BENDIX" means sales!

Texas is a *big* state—they do things in a *big* way. Proof? The Frank W. Sharp Construction Company and its subsidiary, Oak Forest Corporation, of Houston, under big-thinking President Frank W. Sharp, is engaged in building 4800 homes—no two alike—on 1132 wooded acres—and at a cost of \$32,000,000—America's largest privately-financed home development project!

*Every home will be equipped—from the start—  
with a Bendix automatic Washer!*

Mr. Sharp knows that the day of the automatic home is here: that the more complete the home, the easier to sell—even in a coming buyer's market! He knows that Bendix Washers—America's most-wanted washers—add tremendously to the desirability of his homes. For whether the housewife is present or not, the Bendix automatically does the wash! It occupies only four square feet of precious space—uses only half the soap, lots less hot water than ordinary washers require. Unquestionably Bendix makes one home, or 4800, more desirable.



### "The Sign of a smart builder" tells women what they want to know!

Let people know your project is Bendix-equipped! Display this sign, available thru your local Bendix dealer or distributor. It means to the housewife, that the house is planned for her convenience, planned for electrical easy living, worth a premium price!

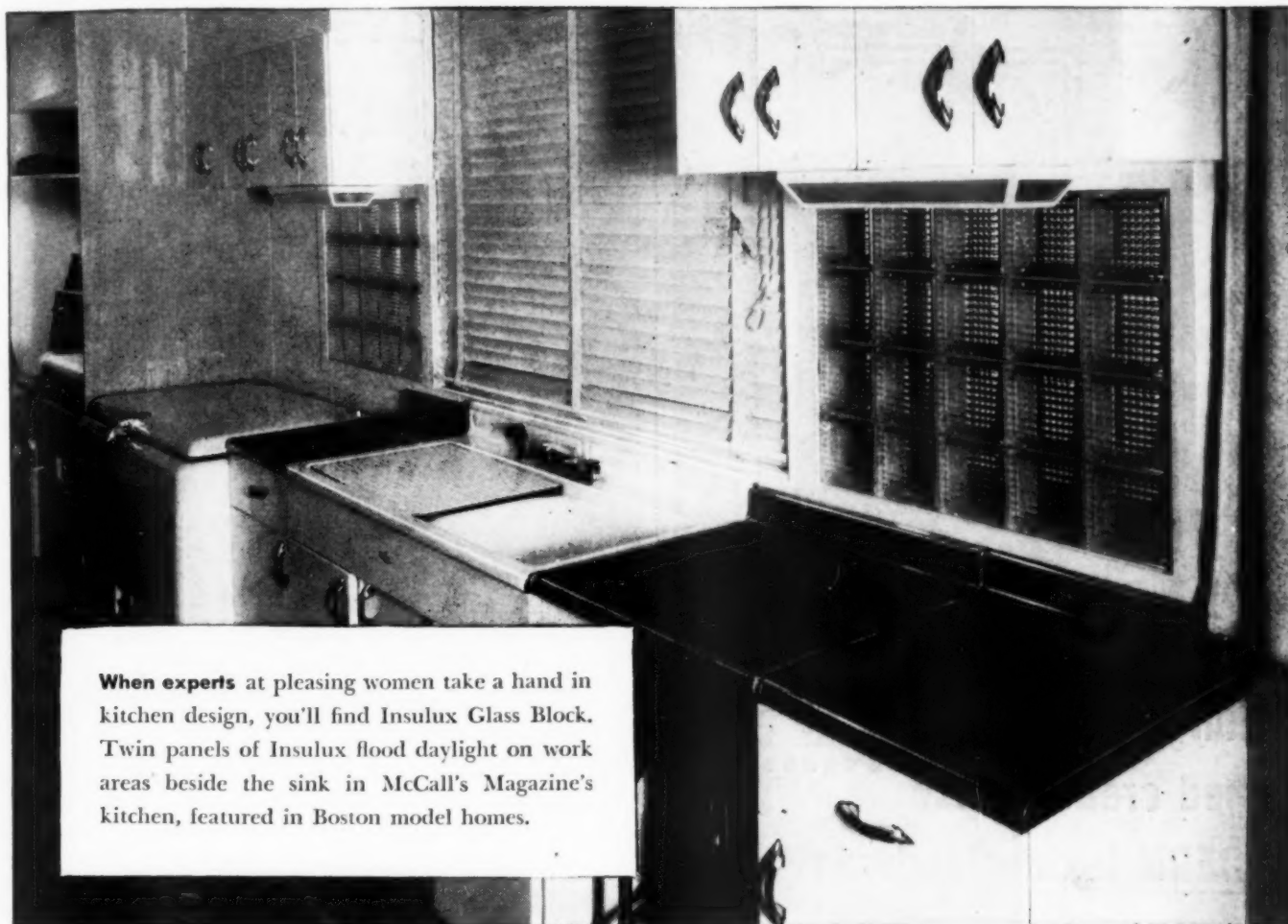
In most states, the Bendix may be bought with the house on a packaged FHA mortgage. See your Bendix dealer.



**BENDIX**  
automatic  
**Washer**

BENDIX HOME APPLIANCES, INC., SOUTH BEND 24, INDIANA





**When experts** at pleasing women take a hand in kitchen design, you'll find Insulux Glass Block. Twin panels of Insulux flood daylight on work areas beside the sink in McCall's Magazine's kitchen, featured in Boston model homes.

## Turn a thought to profits in kitchen daylighting

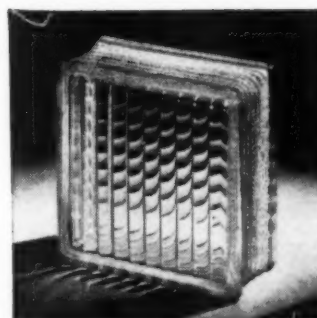
**W**HAT kitchen wonders a few Insulux Glass Block can work!

Such an ideal material for a variety of kitchen uses is certainly worth your second thought. Insulux brings in plentiful daylight. Extra light can be built in *right where it's needed most*—over work areas—in usually dark spots.

No loss of privacy with Insulux! Prying eyes are blocked out—unsightly views eliminated.

You'll discover that women thrill to the sparkling, fresh appearance—are enthusiastic about the ease of cleaning—literally rave about the beautiful patterns. And from the practical side, there are big advantages in the imperviousness to moisture—no rust, rot or corrosion—an end to painting.

● Kitchens are only a starting point for you in the *profitable* use of Insulux Glass Block. Bathrooms, entrance halls, laundries and recreation rooms—in fact, almost any room—can be made lighter, and brighter with this versatile material. Send the coupon for an "idea" book on uses.



*Insulux Glass Block is made in three sizes, many attractive and functional patterns. Here's a profit maker for builders. Investigate!*

**OWENS - ILLINOIS**

**INSULUX**  
**GLASS BLOCK**

SEND FOR FREE BOOKLET

**OWENS-ILLINOIS GLASS COMPANY**  
Insulux Products Division, Dept. D-57  
Toledo 1, Ohio

Gentlemen:

Please send me your free 16-page booklet, "Ideas for Brighter Homes."

Firm Name \_\_\_\_\_

Street Address \_\_\_\_\_

City \_\_\_\_\_ Zone \_\_\_\_\_ State \_\_\_\_\_

Signed \_\_\_\_\_

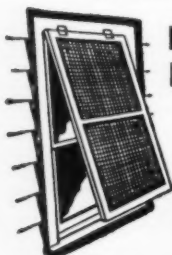


## Century-Old Doorways helped create these **MODERN** toxic standards

The standards which NDMA has developed for testing the effectiveness of toxic preservatives for millwork did not grow up overnight. Years of research and testing were necessary. Pathologists and non-commercial research technologists studied century-old doorways to learn the secret of the remarkable lasting qualities of wood. The results of extensive laboratory and field tests were carefully tabulated and analyzed.

Today, NDMA Standards for the toxic preservative treatment of woodwork such as doors, screens and windows are accepted as meeting the most rigid requirements of modern home construction. Here are the six steps which NDMA takes to make wood a better building material than ever:

1. An efficient test for measuring effectiveness of toxic preservatives.
2. Minimum standards governing the toxic preservative treating of woodwork products.
3. A seal identifying products treated in conformity with NDMA Toxic Preservative Standards.
4. Mill inspection of treating equipment and practices.
5. Laboratory check-tests of preservative solutions.
6. Educational effort in the public interest.

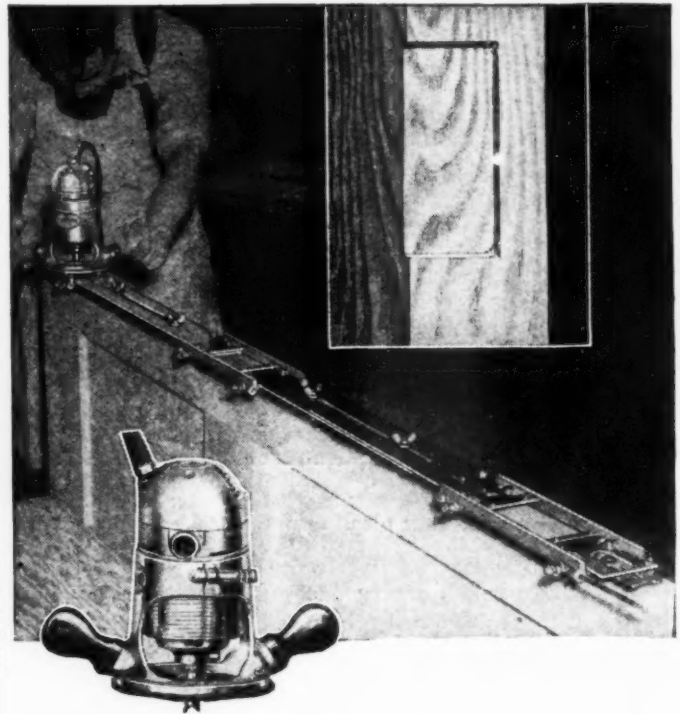


**NATIONAL DOOR  
MANUFACTURERS ASSOCIATION**

McCORMICK BUILDING • CHICAGO, ILLINOIS



## CUT BUTT RECESSES *6 TIMES FASTER*



## With This Stanley-Carter Router

As the pace of building steps up, this is the kind of electric tool that will help you keep up . . . and get ahead. Saves money on small remodeling jobs; makes more money on new construction.

Used with the Stanley-Carter Butt Templet, this Router cuts out recesses for square-cornered butts and for round-cornered butts at least six times faster than is possible by hand. This combination also gives you recesses that have a smooth, perfectly flat surface, providing a very solid foundation for the hinge.

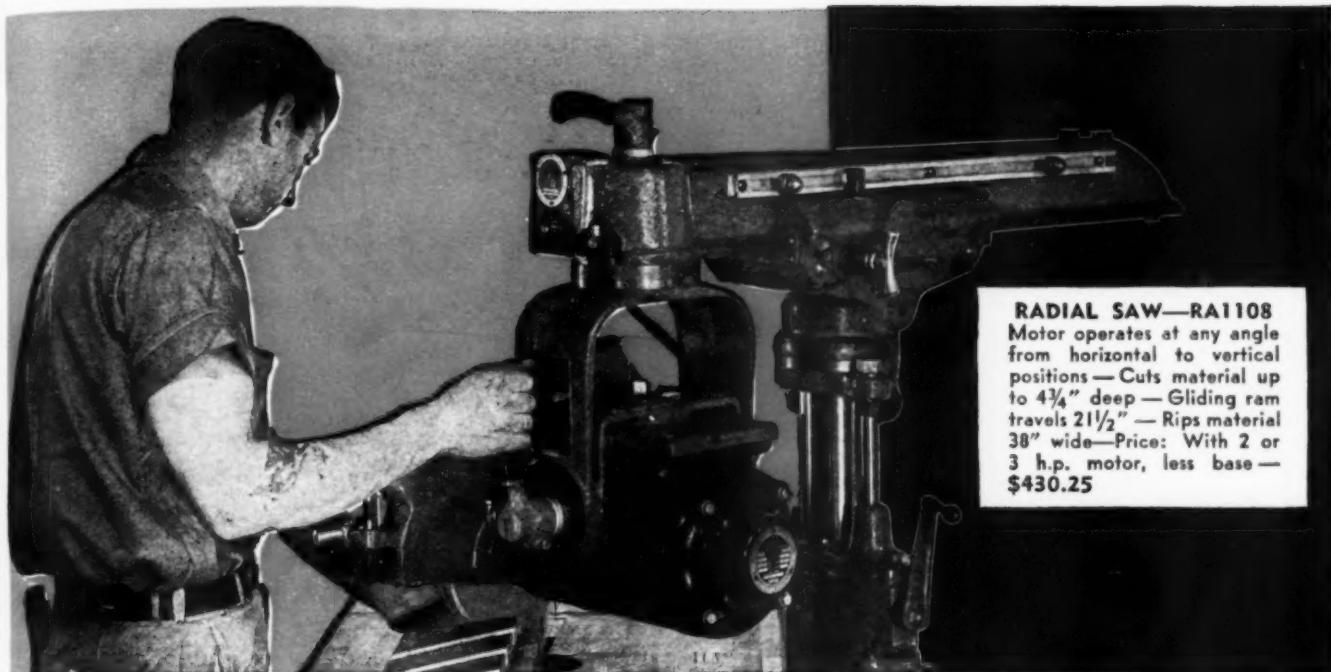
### EIGHT HOUR PERFORMANCE

Unlike hand work, which through the day may become progressively less accurate, the Stanley-Carter Hinge Butt Router gives you full eight hour performance. This means that every door you hang will have the same uniformity. The weight will be evenly distributed over the recess, consequently the hinge screws won't have to carry the full load. This makes for longer, more trouble-free operation of the doors you hang. For further details write — Stanley Electric Tools, Stanley-Carter Sales Dept., 534 Myrtle Street, New Britain, Connecticut.

**STANLEY**

Trade Mark

HARDWARE • HAND TOOLS • ELECTRIC TOOLS



**RADIAL SAW—RA1108**  
Motor operates at any angle from horizontal to vertical positions—Cuts material up to 4 3/4" deep—Gliding ram travels 21 1/2"—Rips material 38" wide—Price: With 2 or 3 h.p. motor, less base—\$430.25

## THE TOOL OF 100 USES *on the job or in the shop*

The Walker-Turner Radial Saw can work wonders wherever ripping, mitering, shaping, tenoning, dadoing, routing or a hundred other jobs are performed. The self cleaning sliding ram with eight ball bearings provides ease of manipulation and full visibility at all times. The saw tilts 45 degrees in either direction and a patented geared motor allows smaller blades and greater sawing capacity with less power per cut.

Special prefabrication set-ups with one or more Radial Saws mounted on conveyor tables, save handling costs and reduce cutting costs by one half or more. The 20-page Walker-Turner bulletin "How to get the most out of your radial saw" will be sent on request.

**FOR PATTERN AND MAINTENANCE SHOPS:** The combination of the three Walker-Turner machines shown on this page will meet every situation. Because of the low first cost and greatly increased speed and flexibility, owners invariably say that these machines pay for themselves in a few months.



**16" BAND SAW FOR WOOD AND PLASTICS BN1135**

Blade speeds: 200 to 5300 s. f. m., Table tilts 45°—Equipped with mitre gauge grooves—Price: Less base and motor—\$153.00

**10" TILTING ARBOR SAW TA1180B**

Arbor tilts 45°—Depth of cut 3"—Price: Less motor, switch, extension tables, guard and splitter—\$135.00



SOLD ONLY BY AUTHORIZED INDUSTRIAL MACHINERY DISTRIBUTORS

57

# MACHINE TOOLS

DRILL PRESSES—HAND AND POWER FEED • RADIAL DRILLS • RADIAL SAWS  
METAL-CUTTING BAND SAWS • POLISHING LATHES • FLEXIBLE SHAFT MACHINES  
RADIAL CUT OFF MACHINES FOR METAL • MOTORS • BELT & DISC SURFACERS



# REDUCE SANDING TIME AND FINISHING COSTS

*Use a Sterling Sander to remove pressure marks and scratches caused during assembly and installation of cabinets.*



## PORTABLE ELECTRIC SANDER

Sterling Sander quickly produces a smooth, uniform surface. Eliminates tedious hand sanding.

### EASIER SANDING

Lightweight (only 8 lbs.) vibrationless and well-balanced, the Sterling Sander is easy to operate even in hard-to-reach places, on flat or curved surfaces.

### SANDS (Coarse or Fine) ON WOOD, COMPOSITION OR METAL

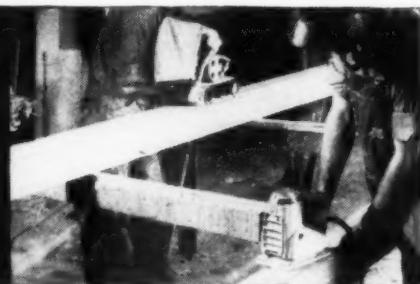
- For dry wall (plaster-board) construction
- For constructing and finishing built-in cabinets
- For smoothing plaster cracks and patches
- Sands doors, frames, sills, stair treads
- Sands undercoats, fillers, primers and finish coats.



*Use a Sterling Sander to smooth rough plaster, excellent for dry wall (plasterboard) construction.*



*Use a Sterling for sanding unfinished cabinet work—smoothing mitered joints—removing finger marks and other blemishes prior to finishing.*



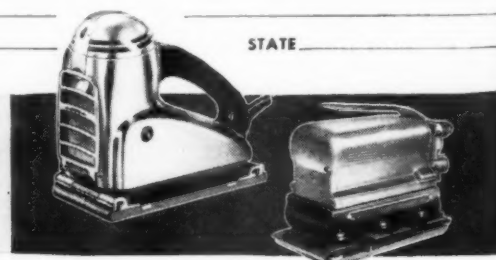
*Use a Sterling Sander to finish trim after rough sanding... also for fitting doors and drawers.*

— — — — — STERLING TOOL PRODUCTS CO., 370-D EAST OHIO STREET, Chicago 11, Illinois — — — — —

WRITE FOR  
FOLDER

NAME \_\_\_\_\_  
ADDRESS \_\_\_\_\_  
CITY \_\_\_\_\_ ZONE \_\_\_\_\_ STATE \_\_\_\_\_

**STERLING SANDERS**  
PORTABLE ELECTRIC AND AIR-DRIVEN



As seen  
in Color in . . .

THE SATURDAY EVENING  
**POST**

● ANOTHER ad in the Gold Bond Campaign designed to spark new interest in the thrill of owning a home. Many families . . . the newly married couples especially . . . often place this last in their plans. Let's try to make it Objective No. 1.  
National Gypsum Company, Buffalo 2, New York.



You can start building sooner if you start planning now. See your local Gold Bond Dealer!

## We call it "Outside Inn"

**What! Build an open ranch house in cold Vermont? It sounded crazy until our architect suggested this clever idea. Now we just slide a panel and presto! We have a living room open to the summer breezes. Yet in winter we have a house as snug and easy to heat as any home in all New England . . .**

There are a lot of good ideas for you here if you're planning to build or remodel. But some of the best ones aren't visible in this picture. For example, under the outside finish are wide panels of fireproof Gold Bond Gypsum Sheathing. They give the house greater structural strength and weather-protection because there are fewer joints. And thanks to modern building research, this better Gold Bond

sheathing costs even less than old-style inflammable sheathing!

Inside the sheathing, in between the wall studs, is another big idea for you. It's fireproof Gold Bond Rock Wool insulation that keeps the house warmer in winter and cooler in summer. Cuts heating bills by as much as 40%. Can be "blown" right into the walls and top ceiling of the house you're living in now.

Whether you're building a ranch house or a Cape Cod cottage, the inside walls will be stronger and better-looking if they're built of Gold Bond Gypsum Lath and Plaster, and painted with Gold Bond Sunflex. This wonderful new one-hour wall

paint comes in eleven fresh new colors that help to make any home bright and gay all year round.

Your Gold Bond lumber and building material dealer can now offer you over 150 Gold Bond building products all designed and engineered to help you build or remodel better. Each product is the best you can buy . . . and it will cost you no more than other materials. The surest way to have these finer, long-lasting materials used in your new home is to ask your architect to specify Gold Bond by name. Your local Gold Bond dealer will be glad to discuss your plans with you. See him first!

**NATIONAL GYPSUM COMPANY**  
BUFFALO 2, NEW YORK

Over 150 tested Gold Bond Building Products for new construction or remodeling add greater permanency, beauty and fire protection. These include wallboard, lath, plaster, lime, sheathing, wall paint, insulation, metal and sound control products.

**DEMAND  
THESE SIX  
GOLD BOND  
FEATURES  
IN YOUR  
NEW HOUSE**

**GOLD BOND FIREPROOF  
GYPSUM SHEATHING**



Big, weatherproofed panels of Gold Bond Storm Sealed Gypsum Sheathing add structural strength and built-in fire protection. Costs less than old-style sheathing.

**GOLD BOND FIREPROOF  
GYPSUM LATH**



Gold Bond Gypsum Lath is the perfect plaster base. Can't warp, expand or contract. Adds fire protection and structural strength for better wall and ceiling construction.

**GOLD BOND FIREPROOF  
GYPSUM PLASTER**



Gold Bond Gypsum Plaster is especially processed to bond perfectly with gypsum lath. Builds fireproof, rock-like walls and ceilings with greater durability and beauty.

**GOLD BOND FIREPROOF  
FINISH LIME**



Over the plaster, goes a coat of Gold Bond Finish Lime. This is the smooth white finish that you see in a new house before the wallpaper or paint is applied.

**GOLD BOND FIREPROOF  
ROCK WOOL INSULATION**

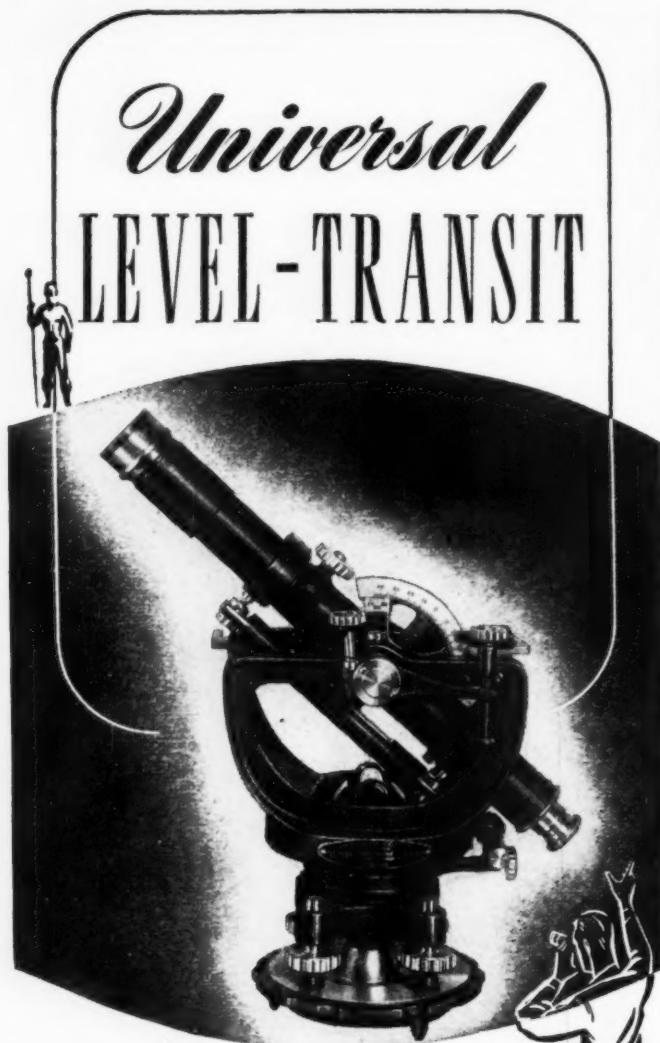


Builds a fireproof blanket of insulation around the house for greater year 'round comfort, family health, and fuel savings up to 40%. Available for new or old homes.

**GOLD BOND SUNFLEX  
1-HOUR WALL PAINTS**



Dries in one hour with no objectionable odor, after-odor. Easier to apply. This modern decoration is now available at your dealer's in a full range of colorful tones.



## Universal LEVEL-TRANSIT

### MOST PRACTICAL ALL-AROUND BUILDER'S INSTRUMENT EVER DESIGNED!

Highly accurate, amazingly rugged, the Universal Level-Transit does all survey and check-up operations in building and road construction!

Quickly convertible from level to transit, its novel type of design protects parts which were formerly exposed to damage and inaccuracies. Other features include: a patented ball-bearing race, lock and release lever system, and perfect alignment adjustments.

12" Telescope, 25 power, horizontal guarded circle, Verniers to 5 minutes, Vertical arc, 3".

Write today for full details and free booklet "How to lay out building lots."



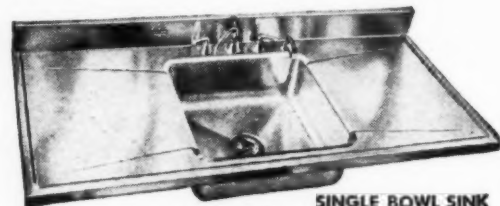
MANUFACTURERS OF  
INSTRUMENTS FOR ENGINEERS,  
SURVEYORS AND BUILDERS.  
301 West Court St., Milwaukee 12, Wis.

## Here's the Solution TO YOUR Kitchen Planning Problem

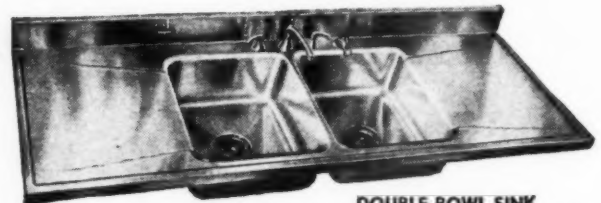
One of the most difficult problems confronting the architect and builder is the planning of the modern kitchen. It is here that several pieces of equipment of different sizes and shapes must be fitted together to make the kitchen not only an attractive and cheerful room, but an efficient workshop as well. That is why so many of America's leading architects and builders specify

### ELKAY *Lustertone* SINKS

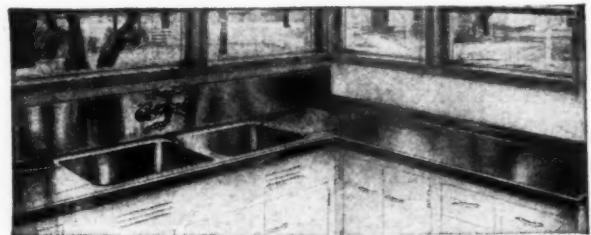
Built of heavy gauge stainless steel all welded construction. They harmonize perfectly with any color and decoration scheme. "Custom built" to meet every individual kitchen planning requirement; also supplied in five standard sizes.



**SINGLE BOWL SINK**  
in 54 inch, 60 inch and 72 inch sizes.  
AVAILABLE FROM STOCK



**DOUBLE BOWL SINK**  
in 72 inch and 84 inch sizes.  
AVAILABLE FROM STOCK



**CUSTOM BUILT SINK**  
to fit any individual kitchen requirements.  
PROMPT SHIPMENT

SEE OUR CATALOG in Sweet's 1947  
Architectural File No. 23-a-8.

Write today for illustrated literature  
A. B. 947 which will help you solve your  
Kitchen Planning Problem.



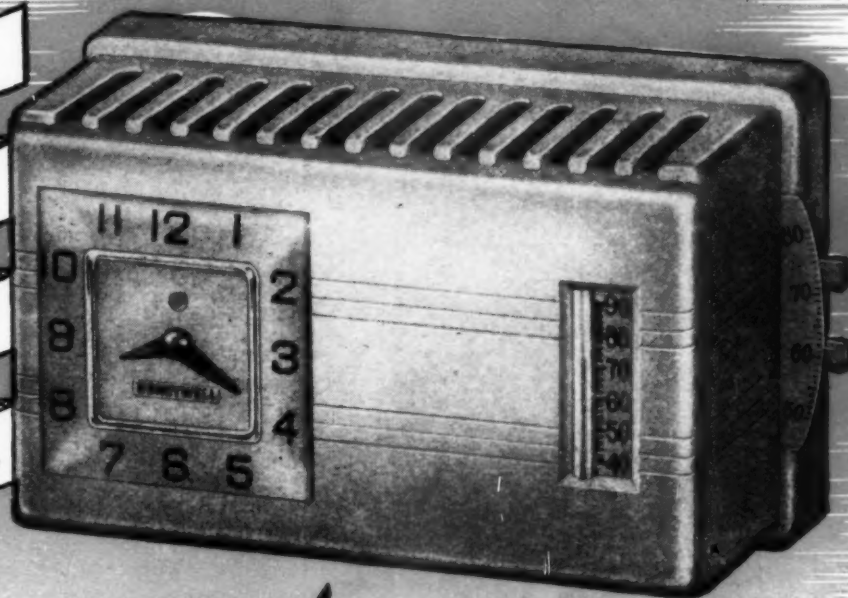
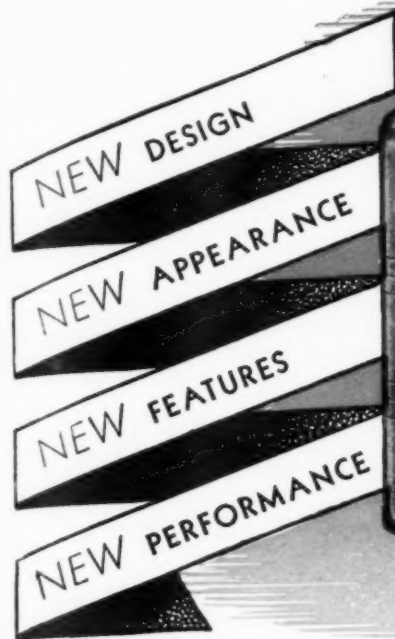
**ELKAY MANUFACTURING CO.**  
1874 S. 54th Avenue, CHICAGO 50, ILL.

**BUILDER OF QUALITY SINKS SINCE 1920**



# HONEYWELL CLOCK THERMOSTATS

.....are here again!



## THE NEW *Chronotherm*

### Check these ten outstanding DESIGN FEATURES

- 1 Simplicity of overall design. No troublesome intricate mechanisms. Exceptionally compact.
- 2 New bimetal element . . . assures more accurate temperature control, yet sturdy and dependable.
- 3 Fingertip external adjustment for day-night temperature settings.
- 4 Gradual morning pickup insures accurate temperature being restored to the daytime setting without overshooting.
- 5 Ease of time settings for day and night operation.
- 6 External fingertip wheel for setting clock . . . hands may be set as easily as a watch.
- 7 Low speed clock motor . . . the ultimate in quiet, accurate clock operation.
- 8 Clock motor provides 30 times more power than required.
- 9 Easily removable clock assures ready means of replacement.
- 10 Separable wall plate for easy mounting.

Here's *BIG* news and it's *opportune*!

Once again Honeywell leads the way—this time with the entirely new Chronotherm, the finest electric clock thermostat ever built.

Coming at this time in the face of a possible fuel shortage, the Chronotherm has special, added significance because it saves fuel. This feature alone creates an immediate demand. Prospects in every field will be quick to appreciate the advantage of extended fuel supplies, lower heating costs.

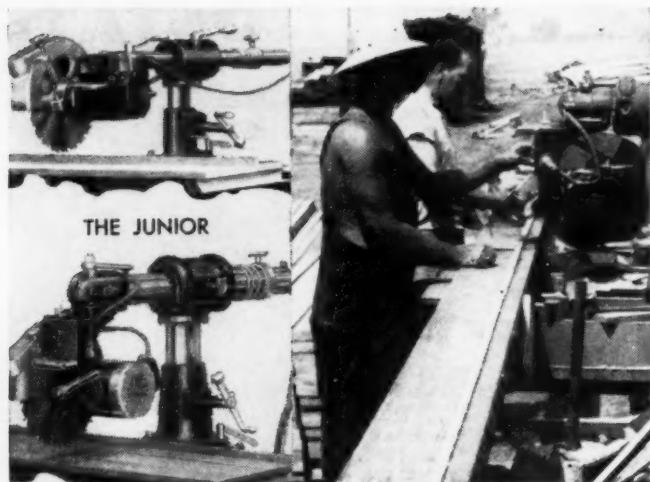
You'll want to include this control as a mark of the newest and most modern improvements in the homes you're building now. Recommend the Chronotherm as a part of every remodeling and modernizing job. It represents a key selling point, an opportunity for added profits.

Powerful national advertising is telling millions of families how the new Chronotherm saves fuel by automatically lowering temperatures during the night and providing more accurate control at all times. Strike while the iron is hot! Take full advantage of this timely opportunity by making Chronotherm the feature performer of your sales activities. Minneapolis-Honeywell, Minneapolis 8, Minnesota. In Canada: Toronto 12, Ontario.

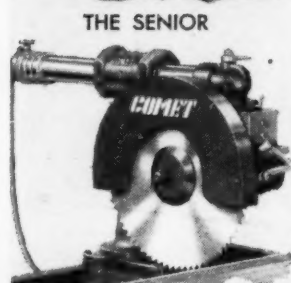
DELIVERIES NOW BEING MADE TO YOUR SUPPLIERS

Order your  
**SALES and DISPLAY HELPS**  
Today!

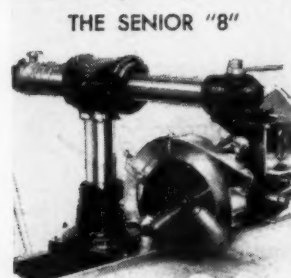
MINNEAPOLIS  
**Honeywell**  
CONTROL SYSTEMS



THE JUNIOR



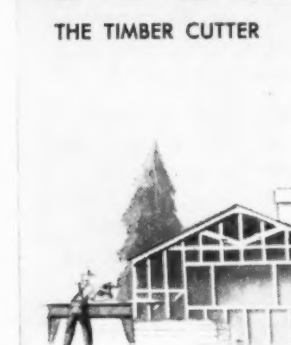
THE SENIOR



THE SENIOR "8"



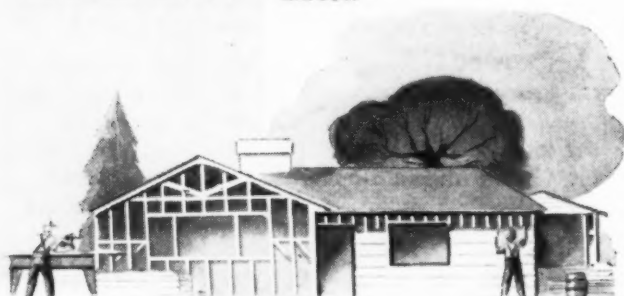
THE CLIPPER



THE TIMBER CUTTER

## For TOP CUTTING EFFICIENCY IT'S COMETS ALL THE WAY

Everywhere rugged, powerful, accurate Comet Radial Power Saws win unstinted praise. All the Comets from the Junior to the Timber Cutter are under ceaseless, increasing demand. Their reputation for giving "more cuts per dollar" is now common knowledge. Order soon to assure quicker delivery. See your dealer or write direct.



CONSOLIDATED MACHINERY & SUPPLY CO., LTD.  
2029-33 Santa Fe Avenue, Los Angeles 21, California

**COMETS** cut quicker

# PRESTILE

*"Its Plastic Beauty is Baked In"*



## Eleven Million PresTile "Salesmen"!

TO MILLIONS of homes all over America — 11,674,703, to be exact — PresTile brings its message of beautiful, practical walls, quickly and inexpensively set up.

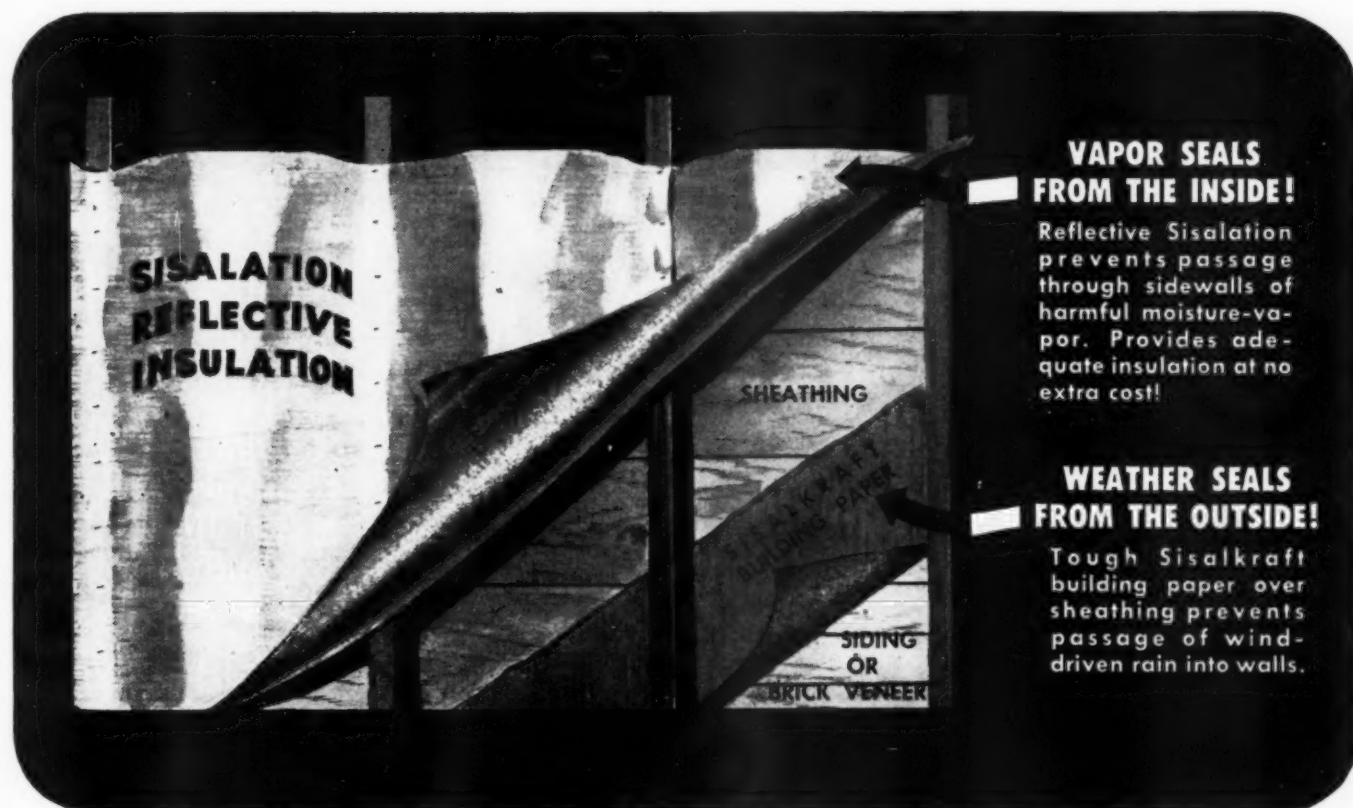
PresTile advertising appears in Better Homes & Gardens, American Home, House & Garden and Small Homes Guide. All of it is designed to make prospective home builders and remodelers familiar with PresTile advantages.

This means ready acceptance when you specify this tileboard of recognized quality!

To our Dealers: Much as we'd like to hurry up production of PresTile to meet the overwhelming demand, we will not skimp on quality and care needed to produce a better tileboard. However little you may receive, be assured it's the best that can be made.

PresTile Manufacturing Company  
2860 Lincoln Avenue • Chicago 13, Illinois

# This Improved Construction Assures a Permanent **DRY WALL** at Minimum Material and Labor Cost!



**See for Yourself:** New wall construction, utilizing the prime features of Sisalkraft and Sisalation, now enables you to stop the passage of harmful moisture into walls easily and economically. This simple method provides a permanent dry wall in homes PLUS all the advantages of adequate insulation at no extra cost!

*Write today for further information about these two products.*

**The SISALKRAFT Co., Dept. AB, 205 W. Wacker Drive, Chicago, Ill.**







**To get it faster look in  
SWEET'S FILE**

One hundred and eighty-nine manufacturers' catalogs—1,196 catalog pages—instantly accessible in the 1947 Sweet's File for Builders.

There, right in your office, you will find up-to-date, useful and comprehensive information on forms, characteristics, performance and use of a wide range of materials, equipments and services.

Manufacturers' catalogs in Sweet's File are indexed by company name, by product and by trade name, so that you can find the information you want instantly—whenever you need it.

**SAVE TIME — SAVE TROUBLE  
LOOK IT UP IN SWEET'S....**

Sweet's is always working to build a bigger and better file of manufacturers' catalogs so that buyers and sellers can get together faster and at lower cost. If you would like other manufacturers to include catalogs on their products in your Sweet's File, please send us their names.

If Sweet's File for Builders is not available in your office, please address request for application to:

**Sweet's Catalog Service  
Distribution Dept.**

119 West 40 St., New York 18, N. Y.

**Free**  
to qualified organizations and individuals

**S**

**WHEREVER THERE'S NEED  
FOR INSULATION**



**YOU'LL FIND**

*Certified*

**INSL-COTTON**

Yes, Insl-Cotton is the answer to an efficient insulation, wherever it is needed. With a "K" value of 0.24, it has more efficiency per inch thickness than any other type of insulation now available. This efficiency, coupled with its easy handling, light weight qualities and its economy, make Insl-Cotton the preferred insulation with home-owner, dealer, contractor and builder alike. It's the efficient insulation for

**• HOMES • OFFICE BUILDINGS •  
THEATERS • HOSPITALS • OR ANY  
PUBLIC BUILDING**

*It's a natural for*

**TRAILERS**—jolting and jarring will not make it sag or settle.

**FROZEN FOOD LOCKERS**—stays completely efficient in sub-freezing temperatures.

**REFRIGERATORS**—keeps cold in and heat out—helps the refrigerating unit do a better job.

**YACHTS**—gives perfect insulation; it has no capillary attraction for water.

**AIRPLANE CABINS**—gives greater protection at high altitudes—sound deadening.

**TAYLOR MADE  
INSL-COTTON**

**WHATEVER YOUR  
INSULATION JOB  
LET INSL-COTTON  
MAKE IT A BETTER  
JOB...**

- Efficient ("K" value 0.24)
- Flame-Proof and Fire-Retarding
- Light weight
- Repels vermin and rodents
- Sound Deadening
- Easy to Install
- Harmless to handle
- Water Resistant
- Economical
- Exceeds FHA, FPMA, and HH-1-528 specifications

**DEALERS-DISTRIBUTORS—**

**INSL-COTTON DIVISION**

**TAYLOR Bedding Mfg. Co.**

TAYLOR, TEXAS

*The Originators  
of Flame-Proof,  
Fire-Retarding  
Cotton Insulation*

*Certified*

Every lot manufactured is tested for weight, density, thickness and flame-proof qualities. Insl-Cotton will permanently retain its flame-proof qualities.

**MAIL THIS COUPON Today**

**INSL-COTTON DIVISION**

Taylor Bedding Mfg. Co., Taylor, Texas

Gentlemen:

Please send specifications and full information on INSL-COTTON.

Name \_\_\_\_\_

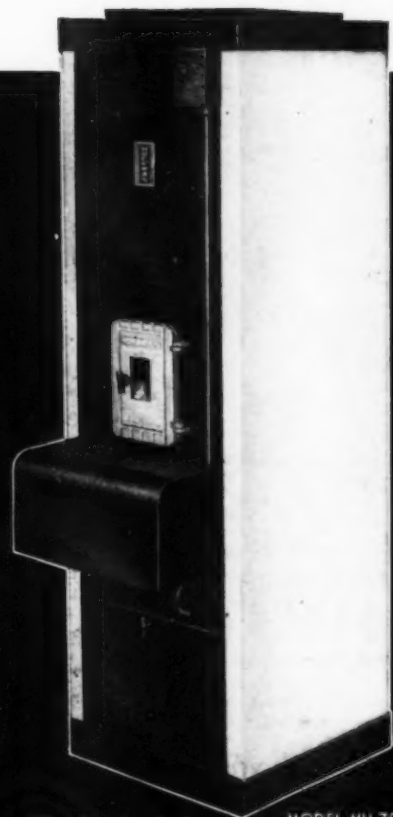
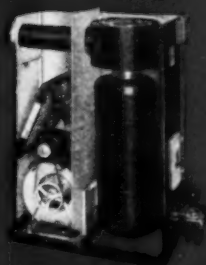
Address \_\_\_\_\_

City and State \_\_\_\_\_

Check Here: ☐ Distributorship ☐ Architect ☐ Contractor

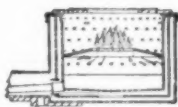
Some territories still open for competitively priced Insl-Cotton. Write for details.

FOR BASEMENT...



...OR UTILITY ROOM

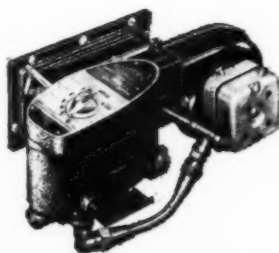
## a new and better kind of LOW-COST HEATING



On low, the flame burns in suspension just above pilot ring.



On high fire, flame leaves burner bowl entirely and burns above pilot ring.



The constant-level oil valve insures a uniform delivery of oil, automatically, and at exactly the proper rate. The Hoffman burner automatically mixes the correct proportions of oil and air, and maintains its own draft to insure clean, complete and efficient combustion.

In the pre-war-tested Hoffman Controlled Heat Furnace you can offer an *automatic, oil-fired* system developed especially for small, modestly priced homes. Genuinely conditioned warm air, thermostatically controlled to meet outdoor weather conditions. Two models, for homes with and without basements, offering many advantages never before available.

### 2-Stage Burner for Comfort and Economy

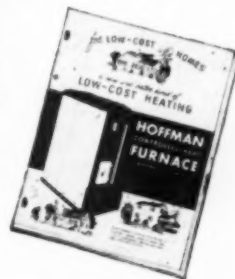
On low, or pilot fire, the flame (usually blue) burns in suspension just above the pilot ring, entirely within the burner bowl.

On high fire, the flame leaves the burner bowl entirely and burns above the ring . . . a clean, yellow, smokeless flame, responsible for the superior operating efficiency of the Hoffman Furnace. Since it is only the oil vapor at the top of the burner pot which burns, there is a pool of cool oil in the bottom of the pot at all times. This accounts for the lack of carbon, which often impairs efficiency of other type burners.

Other advantages include: Gasket Sealed Burner; Stainless Steel Flame Baffle; Fuel Saving Tubular Radiator; centrifugal type Blower that quietly moves more air; large Filters . . . all coordinated in design . . . a genuinely modern example of packaged heat. Write today for Bulletin.

HOFFMAN SPECIALTY COMPANY

1001 York St., Dept. AB-9, Indianapolis 7, Indiana.



# HOFFMAN

MAKERS OF VALVES, TRAPS, REGULATORS, VACUUM AND CONDENSATION PUMPS, FORCED HOT WATER HEATING SYSTEMS



# FURNACES

SOLD BY LEADING WHOLESALERS OF HEATING AND PLUMBING EQUIPMENT

**PICK THE INSULATION  
THAT'S "3-WAYS BEST"**

**CELLULITE\***  
flameproof cotton  
INSULATION

Now available in two types: Type E, totally enclosed with moisture proof vapor barrier one side, paper the other; Type II, vapor barrier only.

### 1 BEST FOR BUILDERS —

Simple speedy installation keeps labor costs down. Lighter weight means savings on structural costs—219 pounds does a better job than more than a ton of other types. No dust, fumes or irritating fibers—Cellulite\* is safe and comfortable to handle.

### 2 BEST FOR DEALERS —

Cellulite\* gives you a better insulation to sell for less money. Increasing demand from cost-conscious builders and do-it-themselves home owners means fast turnover, sound profits. Compact packaging and lightness mean easy handling and storage, lower shipping costs. Three 50-pound boxes, of eight rolls each, insulates the average attic.

### 3 BEST FOR HOME OWNERS

Flameproof cotton insulation is the most efficient barrier to heat and cold commercially available—from 4 to 36 per cent more effective than other types—giving greater fuel savings, greater comfort. K Factor 0.24. Cellulite\* lasts as long as the building itself. Can't pack or deteriorate.

For more information about Cellulite's\* many advantages for the building industry and home builders and owners, fill out and mail the coupon today.

**The Gilman Brothers Company**

Established 1897  
GILMAN, CONNECTICUT

THE GILMAN BROTHERS COMPANY  
52 Lawrence Street, Gilman, Connecticut  
Please send me full information about Cellulite\*.

Name \_\_\_\_\_

Firm \_\_\_\_\_

Address \_\_\_\_\_

City \_\_\_\_\_

State \_\_\_\_\_

Check one ☐ Building Supply Dealer ☐ Builder ☐ Architect

\*Trade Mark Reg.



**OLD ... OR FOREVER NEW?**

New materials and new methods are shaping the vigorous and timely architecture of today. And if in some cases the older ways are discarded for the new, let it always be for the sake of more livable, more durable, more beautiful results.

Lime plaster is one of those building materials that have served us through the ages, beautifully and well. It is yet finding its place wherever good buildings are constructed, looking as new as ever in this modern age, just as it has been doing in period after period of the past.

Modern technology has not produced a better way, nor even an equally good way, for finishing interior walls and ceilings. The one-piece construction of lime plaster is air-tight, fire resistant, durable. There is nothing better, nothing just as good.

Modern science did one thing however. It improved our methods of processing lime, helped us to make a product of consistently good quality. And so in northern Ohio, in the heart of the world's purest deposit of dolomitic limestone, we are making two brands of finishing lime which are always uniform, always 99½% pure.

Remember these brands. They are easily recognized by the red zig-zag stripes on the bags.

**The Ohio Hydrate & Supply Co., Woodville, Ohio**







Fifth of a Series: The Oxford Bathroom

## Crane Styling makes sales

Here is the styling that makes home buyers say, "This is it... this is the home for us!" It's the Crane Oxford Bathroom Group, priced for homes in the middle brackets.

From the many bathroom groups in the '47 Crane line, you can select a style for any taste, at a price for any building budget. Each group features the new *Dial-ese* faucets that open and close at a finger's touch... each has the high quality that has always been part of the best-known name in plumbing.

For the kitchen, too, Crane offers sinks in a wide selection of styles and sizes. And for home heating, Crane supplies the right boiler or furnace for any type of fuel—plus radiators, piping, and all necessary controls.

Look in the 1947 Sweet's Builders' File for a condensed catalog of the Crane line, or write for a copy of the colorful line presentation booklet. No matter what you need in plumbing and heating, your Crane Branch or Wholesaler will gladly help you select the Crane equipment that meets your requirements.



Approx. Size: 11' x 7'

Above is the floor plan of the Oxford Bathroom, the near wall providing space for a dressing table as shown, or for an additional lavatory. Of course, the Oxford Group fits smaller bathrooms, too, as suggested below.

Approx. Size: 8' x 6'



Approx. Size: 5' 6" x 5'

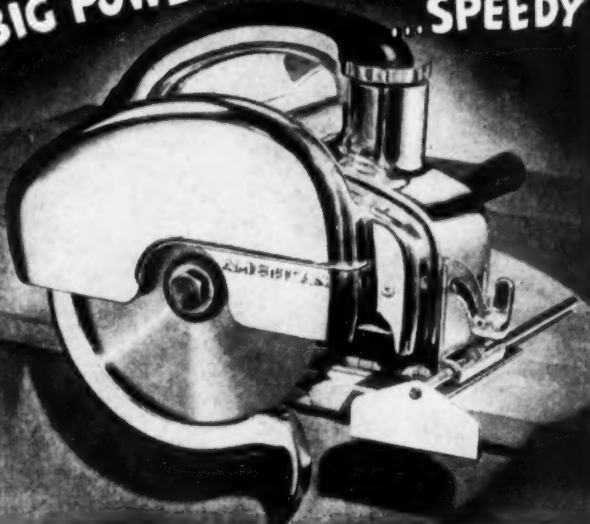
# CRANE

NATION-WIDE SERVICE THROUGH BRANCHES, WHOLESALERS, PLUMBING AND HEATING CONTRACTORS

CRANE CO., GENERAL OFFICES:  
836 S. MICHIGAN AVE., CHICAGO 5

VALVES • FITTINGS • PIPE  
PLUMBING AND HEATING

**NEW**  
BIG POWER...EASY HANDLING  
...SPEEDY



**SEE THIS SAW  
by AMERICAN!**



Save job-time on work  
like this.

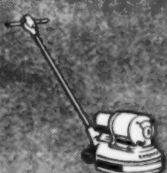
Speedy, handy for trim work.



It's completely new—the American Portable Electric Saw that gives you 50% more power without increase in weight! It's an easy-handling one-hand saw...saves time and cuts costs.

Streamline design... highly polished...top-quality throughout. Smooth starting without jerk or jar. Powered by special G.E. motor which develops 1½ H.P. Blade speed 6500 R.P.M. Maintains cutting efficiency in all types of operating conditions. Exclusive elevating mechanism for accurate depth-of-cut adjustment. Telescoping guard. 8" blade for 2½" straight cut. Will cut a 2" plank at 45°. Write for more details. The American Floor Surfacing Machine Co., 511 So. St. Clair St., Toledo 3, O.

**GET  
AMERICAN  
DEPENDABILITY**



IN SANDERS...EDGERS...POLISHERS

Here's the Fast way  
to get that floor in..



## TILE-TEX\* ASPHALT TILE

If completion of your jobs is being slowed down by scarce materials—get in touch with your Tile-TeX Asphalt Tile Contractor. He is equipped to offer fast, expert installation of a flooring material that's perfect for new home, store, office—and many other types of construction.

Tile-TeX is made to give exceptional wear; and delivers long years of service. It's available in a wide range of smart, attractive colors and patterns to permit greatest possible design freedom. We will gladly send you the name of the Tile-TeX Contractor in your area, plus a copy of "Floors That Endure." Write The Tile-TeX Company, Inc., Chicago Heights, Illinois.

\*REGISTERED TRADEMARK OF THE TILE-TEX COMPANY, INC.

**TILE-TEX  
ASPHALT TILE**



# A Short Cut...

to Bigger Profits  
WITH MODEL 70  
*Mall Saw*  
REG. U.S. PAT. OFF.



**\$105<sup>00</sup>**

**IN U.S.A.**

**7<sup>1</sup>/<sub>4</sub>" Blade—2<sup>1</sup>/<sub>4</sub>" Cutting Capacity**

*Also available in 2", 2<sup>7</sup>/<sub>8</sub>", and 4<sup>1</sup>/<sub>2</sub>" capacities*

The speed . . . power . . . and versatility of the MallSaw adds extra profits to every contract. It finishes sawing jobs faster—cuts costs—eliminates waste. Master-of-all-cuts—it cross-cuts, rips, bevel cuts to 45 degrees, multiple cuts, dados, grooves and cuts light gauge metals. Comes complete with combination blade, lubricant, wrench and metal carrying case.

*Your Dealer can supply you.*



**CROSS-CUTTING**



**RIPPING ON THE BEVEL**

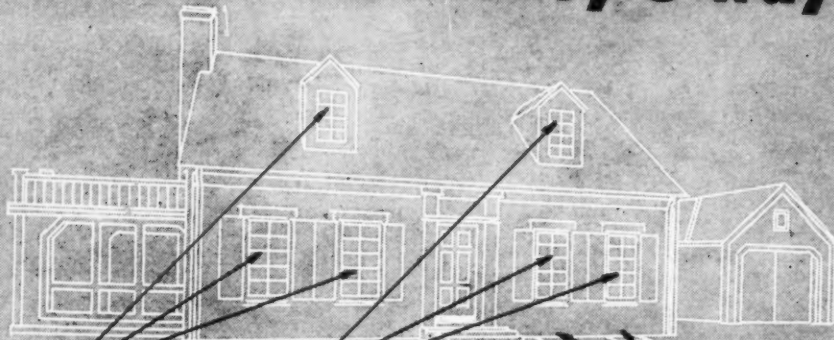
**MALL TOOL COMPANY**

**7737 South Chicago Avenue  
Chicago 19, Illinois**



# Here's

## How to save money 3 ways



### WINDOWS

No repair costs  
Rot proof

### SCREENS

Cost less than  
old style screens

### BASEMENT WINDOWS

No repair costs  
Termite proof



*In construction products* **CECO ENGINEERING**

# a Way to Reduce Home Building Costs !

Have you ever asked yourself "How can home building costs be reduced?" Now, that's a practical question—and here at Ceko we have an answer. Certain Ceko products *will reduce* home building costs. Take steel windows for example: They cost less installed, because there are no hidden costs to overlook, such as hardware, prime coat, accessories, additional labor costs. Then, too, steel windows last, and last, and last. There is no need for repair—they cannot rot . . . they are bonderized and painted for protection against rust. And that goes for steel basement windows, too. Another way to save is provided by Ceko metal frame screens. Installed, they actually cost less than old-style screens, are factory finished—need no on-the-job painting, trimming or fitting. So, to reduce home building costs, recommend Ceko metal casements, basement windows, and metal frame screens.

## WHY SPECIFY CECO?

Ceko does more than design and manufacture fine construction products. Besides their wealth of technical engineering skill there is available construction knowledge gained by 35 years of experience on the job. In 23 offices strategically located from coast to coast, Ceko stands ready to help you reduce home building costs. Call on Ceko today!

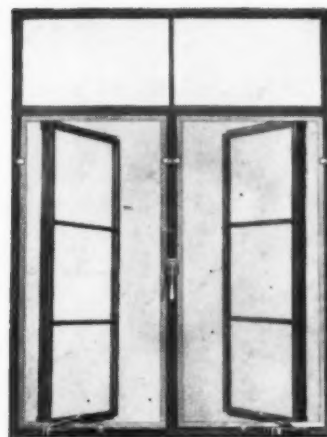
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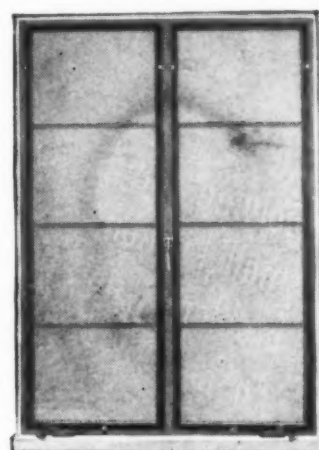
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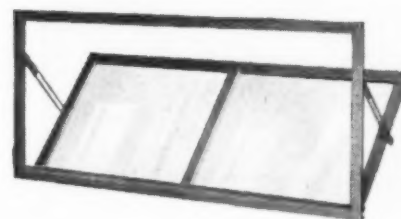
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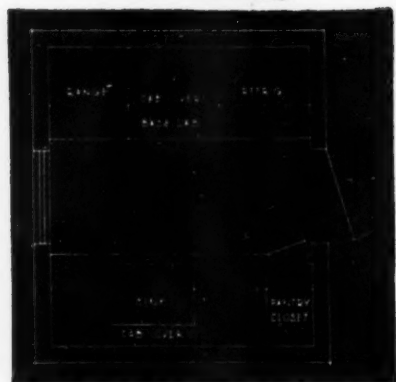
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# EDITORIAL

## **Public Housing—a Live Issue**

**T**HE adjournment of Congress removed the immediate threat of more public housing legislation. The fact that most of the members of Congress left Washington did not, however, mean that the building industry can afford the luxury of a vacation from vigilance. Those Congressmen who are not assigned to committees that take them on various tours of investigation are sounding public reaction to the record of the 80th Congress thus far. The proponents of S-866, relieved of the pressure of duties in the halls of Congress, are busy influencing public opinion in favor of their views.

Their activities and those of the non-Congressional advocates of public housing leave no room for doubt that the autumn and early winter months will be used effectively to develop enough support to assure the passage of S-866 when Congress reconvenes in January, if in the opinion of Senator Taft that is the politically opportune time to bring the bill up for vote. Mr. Taft removed all doubt about his intentions with regard to the bill when he succeeded in getting Senate approval of the President's Reorganization Plan No. 3 in the closing hours of the recently adjourned session. Passage of the plan was a necessary preliminary to passage of S-866.

Builders are now in about the same situation they were in during the war. Then, they were too busy supplying the country's war housing needs to have the time and manpower to oppose the efforts of NHA and OPA to perpetuate those agencies. The net result was a distressing delay in implementing the peacetime home building program. Now, with many Congressmen and all non-government public housers having nothing to do but press their ideas on the public, home builders are working around the clock to give the country record-breaking production of new homes this year, and again have no time to offer opposition.

The net result is a field day for socialistically inclined radio news analysts, left wing newspaper and magazine editors, cartoonists and others in a position to influence public thinking. Distortion of fact, incomplete reporting, gullibility and sensationalism are not uncommon motives and weaknesses behind much of the information given the public on the housing issue.

While there is ample reason for home builders to look at the issue from a standpoint of enlightened selfishness—the view that has been taken—there is also a patriotic obligation involved. The only way that now seems available to save the country from the paralyzing consequences of public housing that have overtaken England and France is for home builders through their associations to marshal the facts and adequately publicize them in the localities in which they operate. To do that will require a sacrifice of time and money in the remaining months of this year. It is a sacrifice, however, which the industry is obliged to make in the interest of reviving an economy of plenty, and assuring the advancement of equal economic opportunity for all.



## SAVING to

STANDARDIZED exterior and interior wall sections were precut and preassembled for fifty Colonials similar to this.

**T**HE rise in home building costs since early in World War II plus a continual barrage of consumer criticism of prices since the war has inspired many builders to spend considerable time and money to hold costs down without sacrificing quality or livability in the houses they built. George J. Goudreau, of Goudreau Builders, Cleveland, had fifty lots in a restricted section of Shaker Heights, adjacent to Cleveland. One of the requirements was that only single-family two-story houses could be constructed. In order to conform with the restrictions and still build houses of good quality that could be sold to the middle-income market, it was obviously necessary to cut some corners on today's building costs.

After deciding that precutting and preassembly of house parts in a shop on the site would accomplish many savings, Mr. Goudreau designed his two-story colonials with as many standard wall sections and parts as possible without sacrificing individuality. Pre-assembling wall sections for a two-story house posed some problems not inherent in a one-story job. Although a decision was made on this job to adopt a balloon-type frame and raise sidewalls two stories in height after assembly on jigs, Mr. Goudreau's experi-

ence here has led his organization and himself to adopt a platform-type frame and assemble and raise sections one story in height instead of two.

After deciding what wall sections, both exterior and interior could be assembled on jigs, considerable time was spent in designing a shop layout for maximum efficiency and economy. The layout shown in connection with this article proved to be very efficient. A careful check of costs were kept, both on the original investment and on operation. All equipment shown, together with office equipment, three trailers, jig tables, saws and conveyors cost \$10,600.

According to figures finally assembled by Mr. Goudreau's organization there is a saving in carpentry costs of about 15 per cent on this type project. But when the actual cost of the shop is considered and subtracted from the savings effected, the net saving to the builder is about \$44.00 per house on a 100-house project. Going on the assumption that the shop is now part of the overhead and that its entire cost is not to be charged against one year's operations, the net saving on future operations is considerably more. This was figured on 200 houses and the net saving on carpentry costs here turned out to be about \$70.00 per

## Aid SELLING —

**Precutting and assembly in on-site workshop helped hold prices down on two-story houses for Goudreau Builders in their conservative Colonial Colony development in Cleveland**



G. J. GOUDREAU

house, or \$14,000. All these figures are based on construction of the two-story six-room colonial houses with a balloon-type frame.

Three basic floor plans were used, one of which included a lavatory on the first floor. Exteriors were varied by the use of different wall coverings such as bevel siding, brick or stone veneer and combinations of all three. In addition to precutting all framing and assembling wall sections in the workshop, all cabinets and stairways were fabricated there in addition to the precutting of trim and special millwork.

The houses, which sell for an average price of \$14,500 are situated on lots from 40 to 45 feet in width and from 110 to 125 feet deep, with an eight-foot solid concrete driveway and lawns seeded. All ceilings are insulated with four inches of mineral wool and heat is supplied by gas-fired automatically controlled warm air furnaces. Walls are plastered over gypsum lath. Although fireplaces are not standard in all the houses, mantels and artificial fireplaces are built into many. Instead of using steel or wood beams as joist supports in the basement, a solid wall of concrete blocks is used not only to support the floor joists, but also to separate the furnace and laundry rooms from the clear portion of the basement which may be used as storage space, recreational area, home workshop, or any special use for

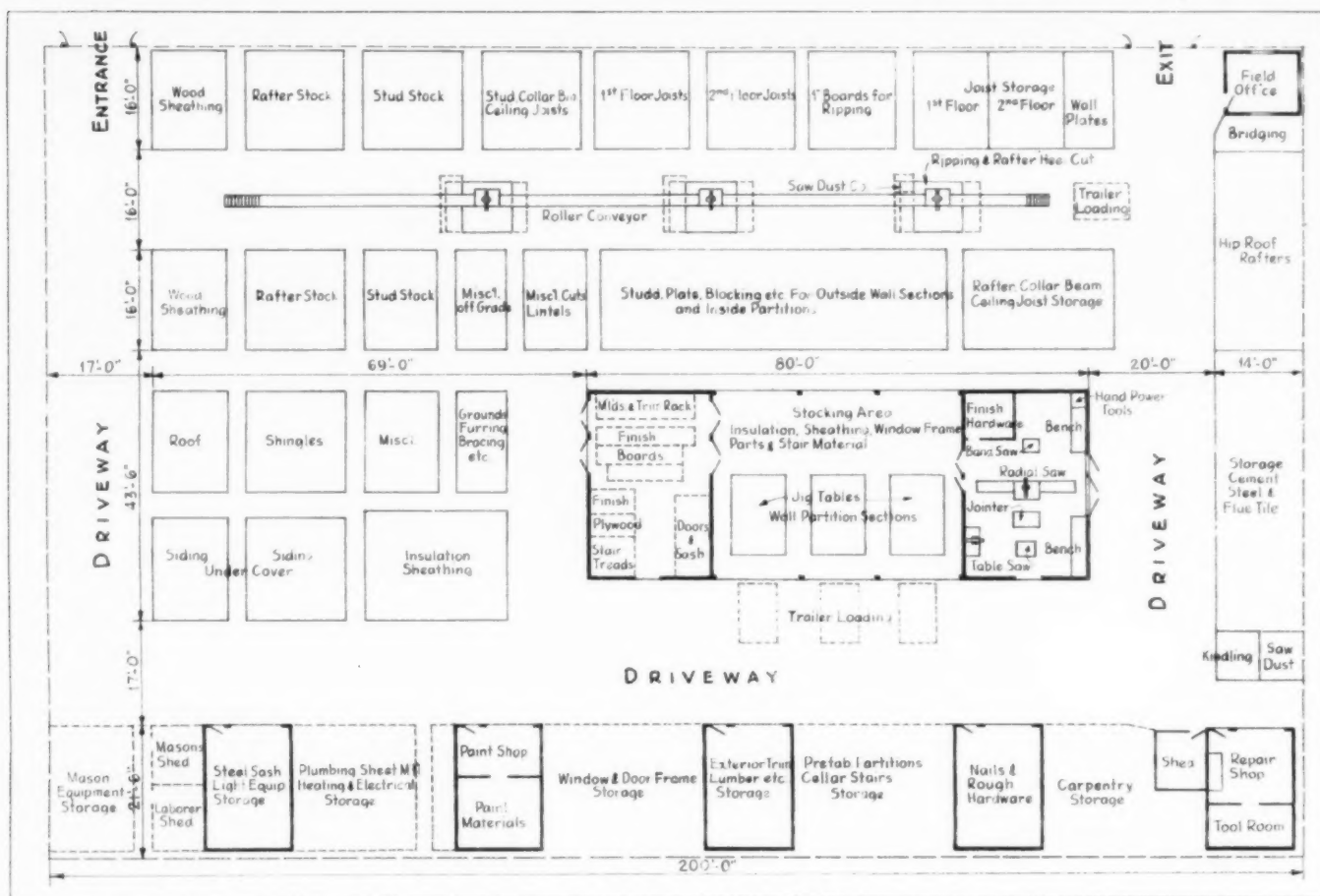


AVERAGE price of these six-room two-story houses is \$14,500.



RESTRICTIONS in this development called for construction of two-story single-family houses on lots as originally platted.





LAYOUT of the workshop where all precutting and preassembly operations for these two-story houses were completed.

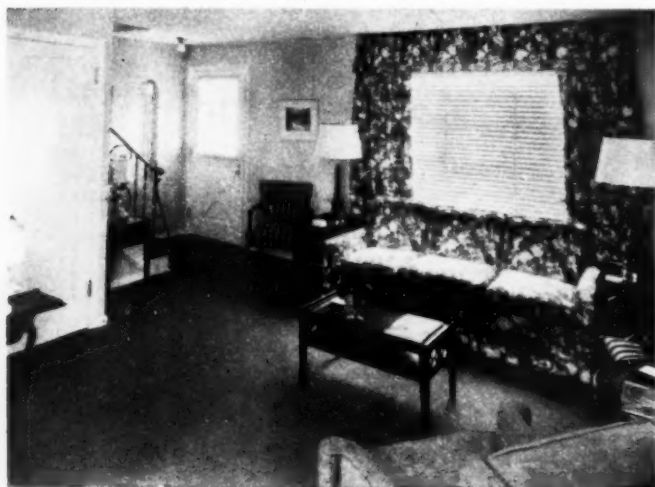
which the prospective home buyer may wish to put it.

In addition to maintaining quality in design, workmanship and materials in these two-story colonial houses by installation of a woodworking shop to precut and preassemble the parts, Mr. Goudreau was also able to continue his policy of offering his home purchasers a cost-free one-year guarantee and a service plan. During the first year of ownership Goudreau Builders agree to fit, adjust, replace or repair any part of a house which becomes defective because of inferior materials or workmanship. This service is free to the home buyer whether it involves carpentry, painting, roofing, or other details.

Following the first year of occupancy covered by the

cost-free guarantee, Residential Service, Inc., a part of the Goudreau organization, is available to the home owner for large or small jobs of remodeling or repairing, such as installing a recreation room, adding a porch or repairing a minor plumbing leak. This is a service especially appreciated in the present era of high prices, shortage of materials and long waiting lists for service.

In spite of standardized wall sections, Mr. Goudreau's Colonial Colony project presents a pleasing appearance to its visitors. The good taste used in variation of exterior elevations, plus landscaping and well-seeded lawns, remove any semblance toward monotony. The efforts put forth to achieve these results in Colonial



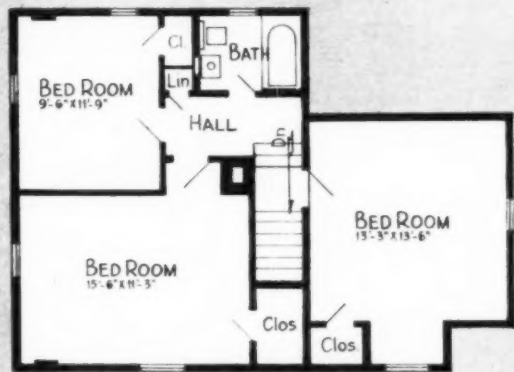
COMPLETELY furnished living room in the Goudreau Model Home.



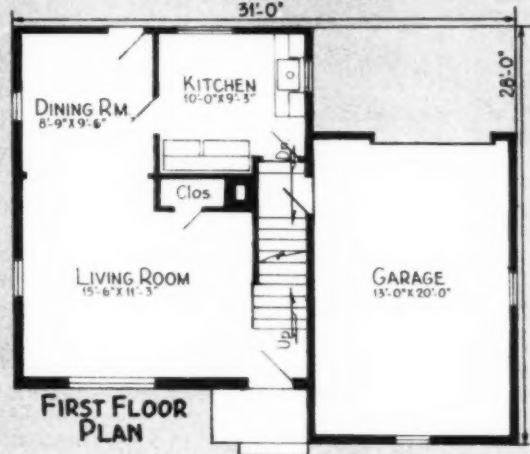
BASEMENT recreation room, finished and furnished in Model Home.



VARIATION in roof lines, windows, front elevations and exterior wall coverings remove tendency toward monotony.



SECOND FLOOR PLAN



FIRST FLOOR PLAN

ONE of the three basic floor plans used in this project.



SEEDED lawn and an eight-foot solid concrete drive is included.

Colony are especially commendable because the character of house design and of land treatment was established from the start by previous plats and land restrictions established long before Goudreau Builders undertook final development of the plat.

Two model houses, completely furnished, including basement recreation rooms, are maintained in the subdivision for inspection by prospective buyers.



SECOND FLOOR PLAN



FIRST FLOOR PLAN

THIS basic floor plan includes lavatory adjacent to the kitchen.

# Modified Ranch Houses Appeal



**SIMPLE**, straightforward lines, accented by a low-pitched roof, characterize the design of the New Canaan veterans' homes.



**INEXPENSIVE** modifications of design shown at top distinguish this version of the plan.



**CONCRETE BLOCK**, painted white, and addition of a wing is variation of the basic plan.

**HOMES** that will soon satisfy the needs and purses of a group of home-hungry ex-G.I.'s, who have resumed their careers as junior executives in New York City, are nearing completion in New Canaan, Conn., a conservative, highly desirable residential community of 3,500 population 40 miles from New York.

Located on the site of a former nursery, which has been subdivided into 30 lots averaging 110 x 110 feet, the project is adjacent to a built-up section and less than 3/4-mile to the railroad station—an all important consideration to New York commuters,—schools, shopping centers and other community facilities.

It was while serving as chairman of the New Canaan Veterans' Advisory Center, that Northrop Dawson, a prominent local realtor and civic-minded citizen, learned first-hand the problems of a small group of married veterans. Though working in the New York City area, they wanted the amenities of homes in the country. Mr. Dawson discussed the problem with home builder George R. Platts, head of George R. Platts, Inc., of New Canaan. In conference with veterans they planned the development.

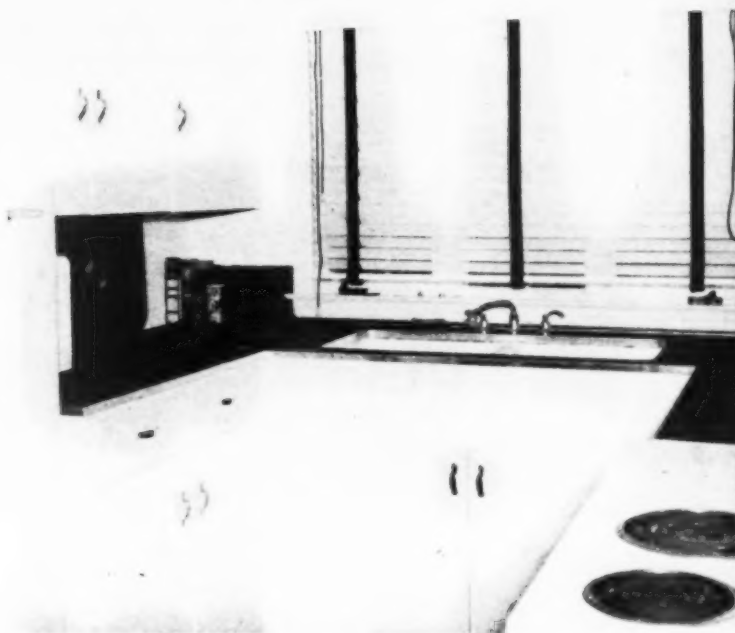
Complying with the preference of the majority of the veterans for a "single floor layout, with two or three bedrooms, that looks low and wide," Builder Platts designed the modified ranch house plans shown here.

The plans take advantage of the ample lots with rooms arranged for compact, easy living. The houses are basementless. The heater pit, located close by the sturdy brick fireplace chimney, serves to isolate the oil-fired hot water heating and hot water systems from the house proper.

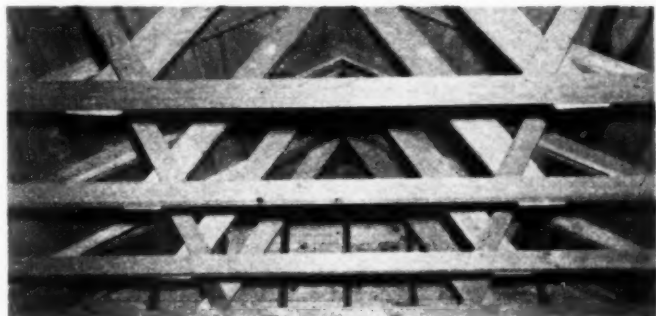


## to Connecticut Veterans

Confronted with rising costs New Canaan, Conn., home builder designs plan to meet "needs and purses" of group of veterans wanting advantages of country living, but compelled to work in metropolitan New York



ONE END of U-shaped, efficient and compact, all-electric kitchen.



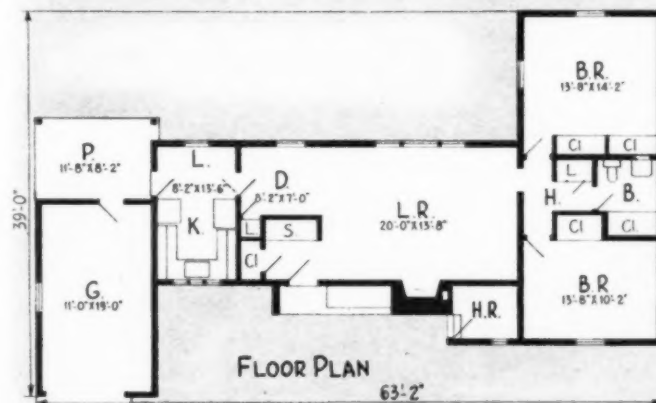
ABOVE: Light weight truss framing is used in roof construction.



HEATER PIT is located to right of fireplace chimney in this house.



THIS view of living-dining room shows maximum use of wall space.



ANOTHER floor plan in this project, for house shown at the left.



TO TAKE advantage of sun, this design turns it back to the street.

# Two Family Houses for Mass Market



**Dean & Wainwright, Birmingham, are including a number of duplexes, convertible to three-bedroom, two-bath single-family homes, in subdivision of low-cost houses**

**O**UTSTANDING among efforts of home builders in the south to satisfy the demand for good mass market housing are the activities of Dean & Wainwright in Birmingham, Ala. Early this year they opened a new subdivision where they are completing more than 200 two-bedroom single family dwellings and about 25 duplexes. The duplexes are designed and constructed so they may be easily converted to three-bedroom, two-bath single family homes at a later date.

The single-family houses are being sold in a price range between \$7,500 and \$8,500, situated on lots varying in size from a 60x136-foot minimum to larger widths and depths up to 220 feet. The subdivision is platted with curvilinear streets, in a well wooded area adjacent to schools and transportation. A new shopping area is developing near the operation. The sale price of the houses includes a 50,000 B.T.U. floor furnace, a 36-inch console gas range, a six-foot Servel gas refrigerator and a 20-gallon automatic hot water heater.

Power equipment is being utilized on the job as much as possible. Dean & Wainwright own and operate all their own dirt moving equipment including two crawler-type tractors equipped with bulldozers, a ditching machine, street roller and numerous trucks and lighter pieces of equipment. All framing is pre-cut on radial-arm saws and powered hand saws are used to cut sheathing and subflooring.

DOTTED lines below indicate changes to make single-family home.



BELOW: View of some Negro houses built by Dean & Wainwright.





THESE two-family houses can be easily converted to three-bedroom homes to take care of family expansion.

Fireplaces are standard in these houses, in addition to the floor furnaces. A four-inch vent from the floor furnace goes up through a terra cotta flue built in the chimney. All water pipes are copper tubing. Interiors are plastered over gypsum lath and all floors are hardwood except the kitchen and bathroom, where linoleum or rubber tile is used. Plenty of good kitchen cabinet and closet space is included in each house.

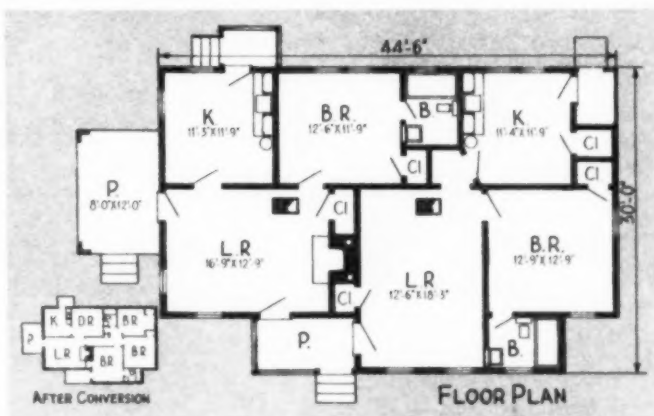
The duplexes, which have the appearance of single-family residences, are concentrated on several streets at one edge of the subdivision. Their architectural lines blend with those of the single-family dwellings so there is no sharp visual division between the two types of structures. At the present time the duplexes are being rented to tenants in both sides of each residence, but the ultimate objective is to sell them to tenants who can, with the removal of a few temporary walls and addition of a door or two, convert the duplex to a single-family three-bedroom, two-bath home. It is expected that the sale of the equipment in the kitchen to be abandoned in making the change, will just about finance the cost of making interior changes and the redecorating that will be needed at that time.

When the duplexes are constructed, the future doors needed for conversion to a single-family home are framed so that the only work needed is to knock out plaster, install frames and doors. In both the Type G and Type K duplexes, fireplaces are standard so when conversion is made, each living room will have that feature. The two floor furnaces included in the duplexes assure maximum comfort when it is converted to a single-family use.

J. M. Wainwright, with Mr. Dean, construction superintendent, who are completing this project, have geared their operation and costs to satisfy the mass market in



ANOTHER type duplex convertible to single-family 3-bedroom home.



INSET indicates changes needed for conversion to single-family

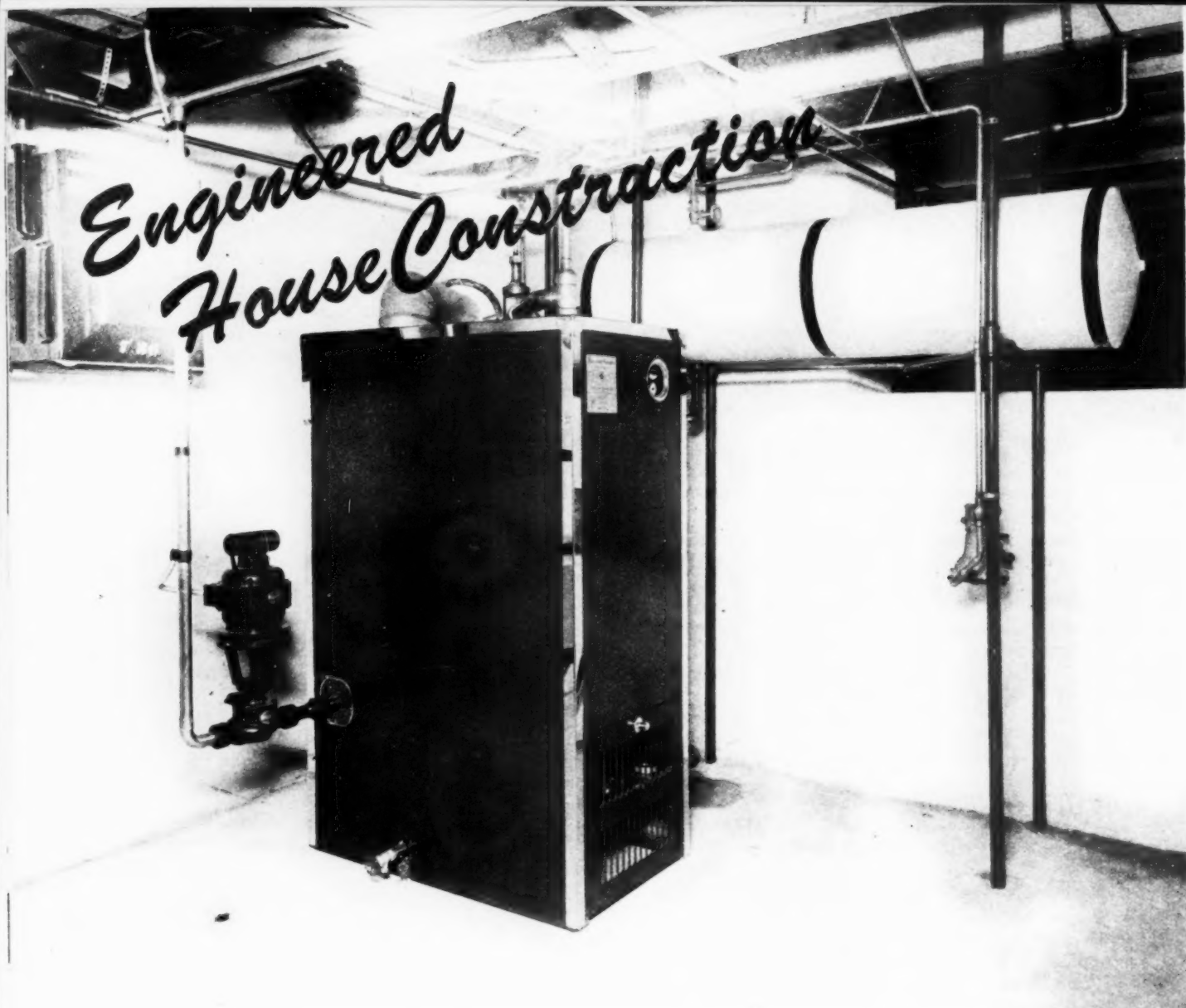
Birmingham. Plans for the duplexes were developed by Mr. Martin of Miller, Martin and Lewis, registered architects of Birmingham.

Mr. Wainwright has also developed several low-cost single-family housing projects for Negroes in Birmingham. For years he has felt that the Negroes in that area needed better consideration in their housing problems and that, if given an opportunity, would take pride in home ownership and maintenance. Recently Mr. Wainwright completed 32 one and two-bedroom houses for Negroes on 50-foot lots and has enjoyed such fine acceptance that he is contemplating construction of 142 more of these small homes, which include floor furnaces and fireplaces. With the population of Birmingham about 40 per cent Negroes, Mr. Wainwright contends that providing better homes which they can own themselves will make them better citizens which in turn will make for better conditions throughout Birmingham.



TYPICAL plan of Negro houses shown at left.





WHEN the thermostat calls for heat, a small electric pump forces water from the boiler to room radiators.

## One Pipe Hot Water Heating

BY J. L. Shank  
Consulting Engineer

**H**OT water is one of the best of all of the heating mediums in use today. It has always cost more to install than other types of heating systems, because more materials are required for the installation. The materials used, however, are designed for long life, which means few repairs. The combining of the initial cost of the hot water heating system with the long life of the material utilized has proven that overall it is an economical system to own.

The hot water heating system, like everything else, has had a change of face. It is no longer a bulky, sluggish heating system that takes all day to heat up and equally as long to cool off. It has become streamlined, incorporating well designed and efficient boilers, small compact radiators and convectors, small pipes and a circulator or booster pump to accelerate the circulation at such times as heat is required. It is controlled so there is very little fluctuation in room temperature. The result is then, modern heating for modern living.

It is possible with a hot water heating system to locate

the boiler or heating unit in the basement, in a utility room on the house floor level, in the attic, or in a separate structure away from the building which is to be heated. In any of these instances, the ultimate result will be the same.

With a hot water heating system, it is possible to isolate any or all rooms in a building. This can be done because each room contains its own heating unit which functions independently from the units located in other rooms. This is quite advantageous in buildings such as offices, hospitals, apartments or even residences where individuals require different temperatures. Along this same line of thought, it is possible to isolate odors, since there is no interconnecting air flow from one room to another when the openings, such as doors, are closed.

In a building fairly well constructed, the air pressure or wind on one side of the building will not disturb the balance of a hot water heating system. The reason for this is because the air movement in each room is confined to the room itself and is heated by the radiator or convector located within. The hot water supplying the heat units

to the radiator or convector is not affected because it travels through pipes from the boiler, and does not come in contact with the air movement. This then means, that when a hot water system is balanced, it will remain so regardless of the outside wind pressure.

It might be well to dwell at this time on the various types of hot water heating systems which are in use today, as well as some of the component parts which go to make up the system.

Perhaps it is best to begin with the conventional two pipe gravity circulating hot water heating system with the open expansion tank located above the highest radiator, many of which are in operation today. This system was the original hot water heating system which used large pipes and equally large radiators. The system was slow to heat up and equally slow to cool off, as the circulation was created by the difference in the weight of heated water and cool water. This system is still being used today in localities where electric service and pressure water systems are not available. The system has, however, changed face somewhat through the use of modern thin tube radiators, compact boilers, and better engineering, which has reflected in the use of smaller pipes and a better circulation of the water.

Next in line is perhaps the two pipe closed hot water heating system. The closed two pipe system is very similar to the two pipe gravity system, inasmuch as the boiler and radiators used in each system are of the same size. However, in the closed system, the open expansion tank located above the highest radiator in a gravity system is eliminated and an air tight compression tank is located in the boiler room and the system is fitted with a relief valve. By closing the system, it is possible to further reduce pipe sizes and speed up the circulation. This type of system is still being installed where modern utilities are available and no automatic firing device is considered.

This now leads to the one and two pipe forced hot water heating system. Forced hot water circulation was brought about through the addition of a circulating or booster pump to a closed two pipe hot water system. By using a pump it was found that pipe sizes could be further reduced, and that it was also possible to reduce

control each room individually by installing a temperature control valve on each radiator or to control the entire heating system from one central point. The latter arrangement is the most commonly used because of cost. However, it will do an excellent job in a small structure. Large structures are usually controlled in zones, so as to effect good control at a reasonable initial cost.

Forced circulation has made the hot water heating system competitive with any of the other types of modern heating systems. However, the forced hot water heating system still retains the quality for which hot water heating systems have always been credited. The hot water heating system was made competitive through the use of smaller radiators and convectors, smaller pipes, which mean less labor to install, and by operating at higher water temperatures, through the use of a booster pump to force the circulation.

The modern hot water boiler is small and compact, utilizing very little floor space. It can be encased in a metal insulated jacket and become a part of the furnishings of the building in which it is installed. However, like all pieces of modern heating equipment, it should be designed for the fuel which is to be burned. The boiler may be constructed of cast iron, steel, or copper, and the conditions under which it is to operate should govern the type of material selected. By selecting the proper boiler, many years of trouble-free service may be experienced.

The modern radiator like the modern boiler is efficient, well designed, and is a space saver. There are many types and designs which make it possible to suit the whims of most any individual. There is the conventional cast iron, which is of the thin tube design and may be set free in a room or can be recessed and fitted with an attractive metal enclosure. There is also the radiant type cast iron radiator, which is enclosed within itself, and like the conventional cast iron radiator may be free standing in the room, partially or completely recessed. Last but not least is the convector type radiator, which is a heating element constructed of cast iron, copper, or some non-ferrous metal mounted in a metal enclosure. The convector too, may be free standing in the room, partially or fully recessed. It might be well to state at this time that satisfactory results cannot be obtained when various types of radiation are in-

**In this fourth article of the series to acquaint builders with the fundamentals of good home equipment selection and installation the Anicka-designed house was engineered for one pipe hot water heat**

the size of the radiators. The reduction in the size of radiators was because higher water temperatures could be used and still maintain the same normal drop in water temperature. In the majority of instances, the temperature drop is approximately 20 degrees Fahrenheit, which is considered good practice, regardless of the type of the hot water heating system.

A properly designed and installed hot water heating system has always been economical to operate. However, the advent of forced circulation further reduced the operating cost. In any type of heating system, this flow of heat is brought about by the burning of fuel as in a gravity circulating or closed system, or by using electricity to drive a booster pump, which is used in a forced circulating system. It has been proven that it is more economical to use electricity to cause the flow than to burn fuel. Consequently, the result is a less overall operating cost.

Forced circulation has also brought about better control of hot water heating systems. It is now possible to



PINE paneling which makes the walls of this room so attractive was also used to build a grille around hot water radiator.

stalled in the same zone. This in reality means that the system should be all cast iron tube, all convector, or all radiant type cast iron. The reason for this is, that each type radiator has certain peculiarities which do not blend with another type. For example a cast iron tube radiator does not heat up as rapidly as a convector type of radiator. However the cast iron tube radiator does retain the heat longer and emits the heat less rapidly than the convector type radiator. Thus if the two types were installed in the same building, and on the same control system, the results would be quite uneven and very unsatisfactory. Therefore be sure and use one type of radiator throughout the structure or throughout each zone if the system is so designed.

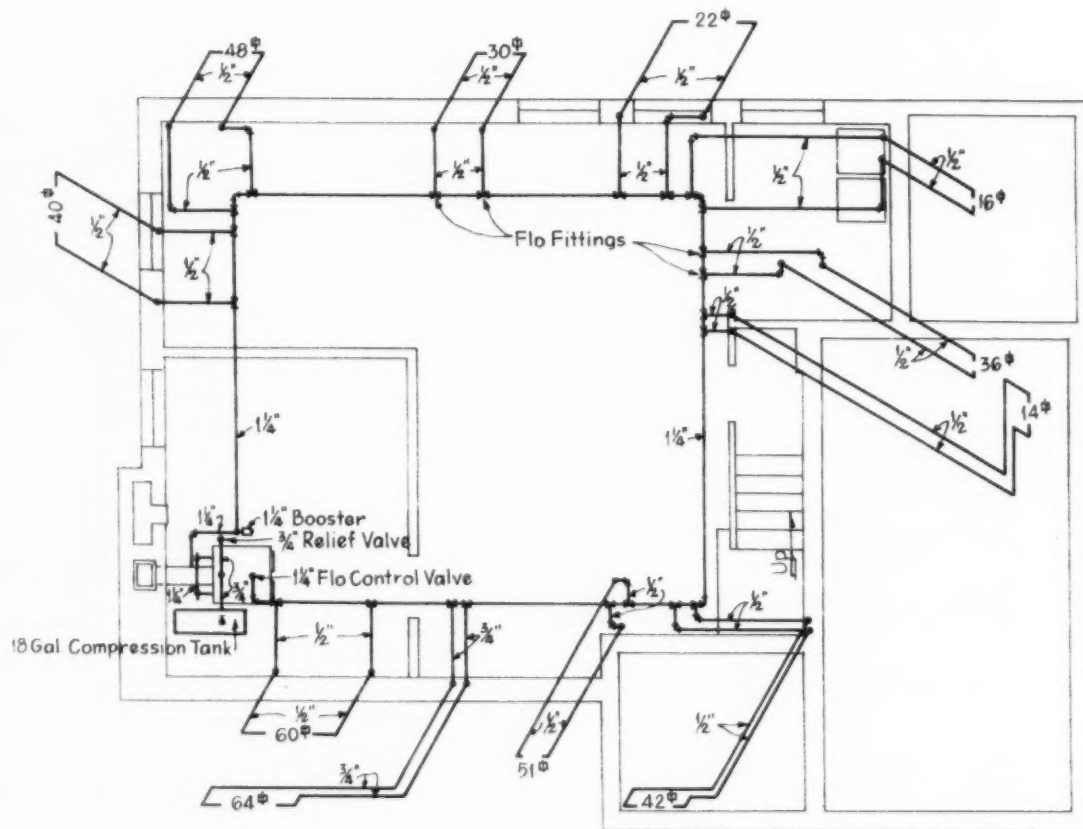
Hot water heating systems like all other heating systems present certain conditions, which must be overcome in order to have satisfactory efficient operation. The problem of air in a hot water heating system is the chief condition which must be overcome. For without the complete elimination of the air from the heating units, radiators or convectors, and from the piping, the heating system will not operate satisfactorily if at all. This then necessitates competent engineering for design plus skilled workmanship for the installation. The combination of the two resulting in the correct elimination of the air thereby assuring a high degree of overall efficiency.

With a hot water heating system, like all other heating systems, the chimney is important. A small, undersized chimney, as well as a chimney of the proper size but poorly constructed, will not cause the unburned gases in the boiler to pass freely. This will then cause carbon or soot to cling to the heating surface of the boiler, preventing it from absorbing the heat from the unburned gases at a normal rate. The results will be low efficiency, high operating cost or perhaps the boiler will not heat the system at all. On

the other hand, a chimney can be too large, resulting in back drafts, thereby creating the same condition. It can also be too large and cause the unburned gases to escape too rapidly, thereby preventing the extraction of heat from these gases, thus lowering the efficiency of the boiler and increasing the fuel consumption. It is therefore well to select the boiler to be used, and to build the chimney to conform with the recommendations of the boiler manufacturer.

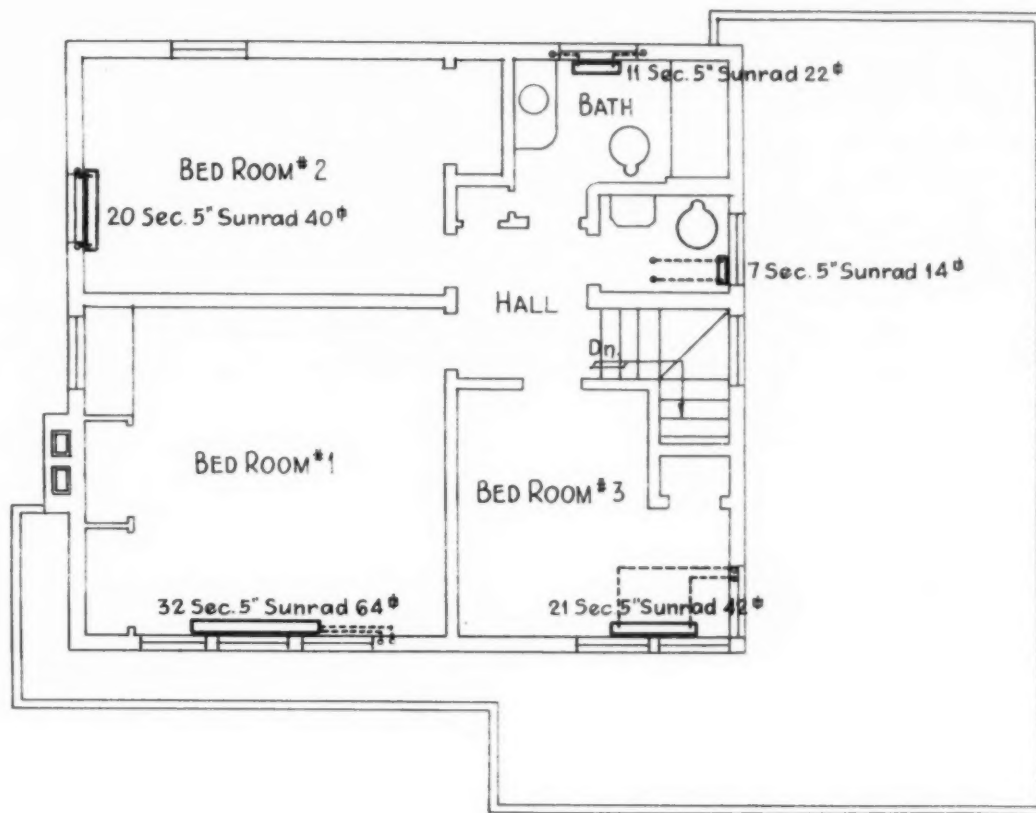
The hot water heating system, like those presented in the previous articles, is designed for the standard two-story colonial house presented by Walter T. Anicka, architect, Ann Arbor, Mich., and illustrated in the March, 1947, issue of the *American Builder*. This system, like the others, is designed for an inside temperature of 70 degrees Fahrenheit when the outside temperature is 10 degrees Fahrenheit below zero, with the exception of the bath which is designed for 80 degrees Fahrenheit. It is also designed at a 200 B.T.U. radiator emission rate and a boiler water temperature of 210 degrees Fahrenheit.

The system designed is known as the one pipe monoflo heating system. The reason for the design of the one pipe system rather than the two pipe, is that it is more simple to install, and is more neat in appearance. These being two very good reasons why forced hot water is popular and competitive. Some persons no doubt wonder how a one pipe system will heat satisfactorily, since the warm water and the cooler return water flow in the same pipe. The answer is this: The warm water and the cooler return water mix, but by maintaining rapid circulation throughout the system there is very little noticeable temperature drop in the circulated water. The very few degrees temperature drop in the water will not be noticeable in the heat output of the radiators as it is seldom possible to in-

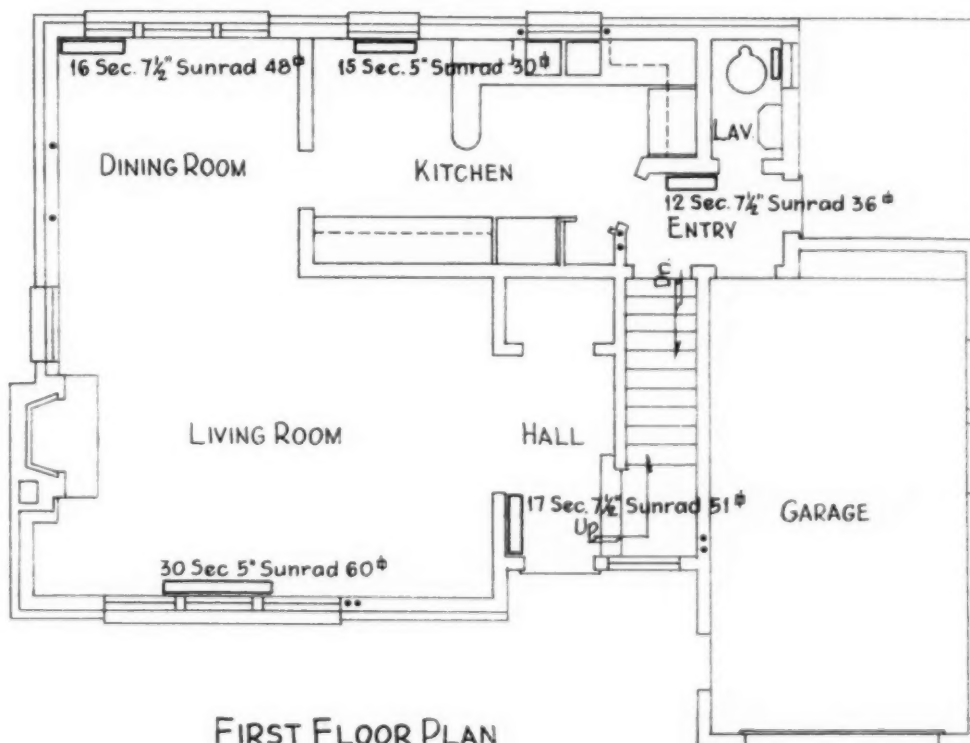


BASEMENT PLAN





SECOND FLOOR PLAN



FIRST FLOOR PLAN

CALCULATION CHART																			
ROOMS		FIRST FLOOR										SECOND FLOOR							
		Reception Hall		Living Room		Dining Room		Kitchen		Lavatory		Entry		Bed Room No. 1	Bed Room No. 2	Bed Room No. 3	Bath	Lavatory	Hall
	Factors	Exposure	B.T.U.	Exposure	B.T.U.	Exposure	B.T.U.	Exposure	B.T.U.	Exposure	B.T.U.	Exposure	B.T.U.	Exposure	B.T.U.	Exposure	B.T.U.	Exposure	B.T.U.
Infiltration	Windows .72 Doors 1.42	20	2270	48	2770	30	1730	34	1900	13	750	20	2270	68	3920	34	1900	51	2940
Total Exposed Wall		194		272		160		128		64		40		218		180		120	
Glass	1.13	36	3250	84	5760	39	3520	24	2160	7	175	21	1900	48	4340	24	2160	36	3250
Net Wall	.20	68	1085	208	3330	121	1935	104	1665	57	910	19	3940	170	2720	164	2820	84	1340
Floor	.10									15	45	12	39	210	1680	150	1290	100	800
Ceiling	.10									15	120	12	96	210	1680	150	1290	100	800
Total B.T.U.			8605											12960	7940	8330	4490	2545	*3745
Sq. Ft. Radiation @ 200 B.T.U.		52		59		47		29		15		37		63		40		42	

TABLE revealing how heat loss and B.T.U.'s were calculated for this one pipe hot water heating system.

still the exact amount of radiation in a room to take care of the calculated heat loss. Then there is always the human element involved in the construction of a building, which cause different heat loss conditions other than those calculated. Therefore, taking the system as a whole, there will be very little if any difference in the temperature in each room.

The heat loss calculations as shown in the calculation chart are identical to those used in the previous articles. The calculations for the first floor wall construction were based on brick veneer, 25/32 insulating board sheathing, studs and plaster on gypsum lath. While calculations for the second floor were based on wood siding, 25/32 insulation board sheathing stud and plaster on gypsum lath. The coefficient of each type of construction is so similar that .20 B.T.U. was used for each. The calculations for the windows was based on double hung wood sash without weatherstripping or storm sash. The infiltration calculation was then based on between average and poorly fitted windows. The calculation for the heat loss through the second floor ceiling was based on plaster on gypsum lath with 2½ inches of mineral wool between the joists.

Upon arrival at the heat loss for each room, the size of the radiators was determined and the locations selected. All of the radiators, where possible, were located so they did not project above the window stool. It might also be said that the type of radiator was selected before determin-

ing the size and location. In this job the radiant type cast iron was chosen and used in a free standing position. Where the radiators were located beneath the windows, they were set into the room a sufficient distance so that with drawn drapes, the drapes would slide behind each unit, thereby assuring heat into the room at all times. The selection of the radiant type radiator was made, so as to assure radiant as well as convected heat entering each room, thereby creating a very desirable comfort condition.

The type of fuel to be burned was selected, and after this, the kind and type of boiler was determined, the size of the boiler being determined from the heat loss calculation for the building, plus the piping loss and pick-up load. In addition to this load, the load required for heating the domestic water was added. Upon the completion of the boiler load calculation, a boiler was selected and indicated on the plans.

The booster pump was then sized, basing the capacity on one gallon per minute flow for each 10,000 B.T.U. heat loss in the building, 10,000 B.T.U. being the number of heat units a gallon of water will release when taking a 20 degree drop in the water temperature. Upon determining the number of gallons required for the system, the selection chart of the pump manufacturer was used to determine the head capacity against which the pump was to operate. Precaution was taken in the selection of the pump to the extent that one was selected to discharge at the necessary flow rate, of at least 3½ foot head.

The main was then indicated, as well as the risers to each radiator and the runouts or branches from the mains to the risers. The main was graded so as to prevent air pockets and water traps forming. The runouts or branches were taken from the top of the main either on a 90 or 45 degree angle and pitched upward to the risers so as to prevent the pocketing of air, thereby assuring good circulation. The branch connections were made to the main by the means of monoflo fittings, one monoflo fitting for the supply branch connection and another for the return branch connection. In many installations, only one monoflo fitting is used on either the supply or return connection, the other connection being made with a common tee fitting. The single monoflo fitting arrangement is quite satisfactory providing one fitting will set up a sufficient resistance in the main to overcome the pressure drop through the branch and riser piping and the radiator which they supply. A more positive system will result if two fittings are installed, which in reality means additional resistance in the main to overcome the resistance in the



THIS new style radiator sends active radiant heat from the front while convected heat pours from upper grille past the window.

pipings and through the radiators, as well as to take care of negligence on the part of the steam fitter through the failure to ream the pipe, and to provide sufficient pitch.

Pipe sizing was done by taking the actual length of the main and adding 50 per cent to the actual length for fittings to obtain the total length. Then by using the equipment manufacturer's chart, working from the fixed head at which the pump discharges and the total length of the main, the main size and the resistance in milinches per foot of pipe were found. By using the milinch resistance figure found, and referring to the manufacturer's chart for risers using two fittings, the carrying capacities of various sizes of pipe in B.T.U. were noted. From this chart it was possible to determine the size of the risers and branches for each radiator. The method used in selecting the pipe sizes, is what is known as a quick sizing method and is suitable for majority of small installations such as residences. In large installations, however, a more extensive calculation is required to determine the correct pipe size as well as the correct size pump or pumps.

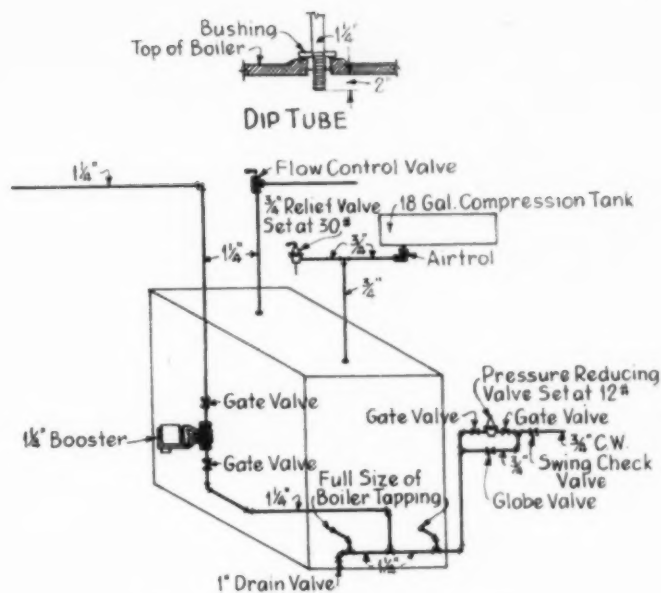
A flow control valve is used in the boiler supply connection, and is the same size as the main which it supplies. The reason for using the flow control valve is so that it will be possible to maintain a sufficient water temperature in the boiler for domestic water heating as well as to prevent the flow of the hot water in the boiler to the radiators, until such times as additional heat is required in the rooms. The flow control valve actually becomes a part of the control system.

The compression tank was then selected. The size was determined by giving it a capacity of four per cent of the total gallons of water in the system. In determining the compression tank in this manner, it will assure an ample air cushion, which will compress to take care of the expansion of the water in the system when it is being heated. This will then assure very little if any loss of hot water from the system, which in reality means no heat will go down the sewer.

Air has always been the chief source of annoyance in any hot water heating system, as air prevents the proper circulation of water through the system, whether by gravity or forced circulation. An airtrol has therefore been indicated in the system as shown, which when correctly installed eliminates the air problem. The function of the airtrol is to eliminate the air at the source from which it is released from the water, the boiler. This air elimination is brought about by extending the supply main connection into the boiler at least two inches. By doing this the air which is released as the water is heated accumulates in the top of the boiler where it is transferred to the compression tank through piping through the airtrol. Releasing the air from the system in this manner, will also assure a sufficient air cushion in the compression tank, to handle the expansion of the water in the system as it is heated. The airtrol is a relative innovation in the heating industry and is manufactured by only one manufacturer at the present time. However, it has been proven satisfactory and functions for the purpose for which it is designed.

The relief valve is also an important item in any forced hot water heating system. Perhaps enough cannot be said about a relief valve, for it does exactly what the name implies, relieves the pressure when it becomes too great within the system. Many serious explosions have been prevented through the installation of a good relief valve. Therefore be sure there is a good relief valve of sufficient capacity installed in the hot water heating system in a proper manner.

A pressure reducing valve is not nearly as essential in a hot water heating system as a relief valve. The reason for this is that the water may be fed into the heating



DETAIL OF BOILER CONNECTIONS

system by a hand controlled valve to sufficiently fill the system, and if the water is left turned on the relief valve will release the pressure. However, if a person has a fully automatic heating system, he should install an automatic pressure reducing valve set at the minimum pressure to assure the system being full at all times.

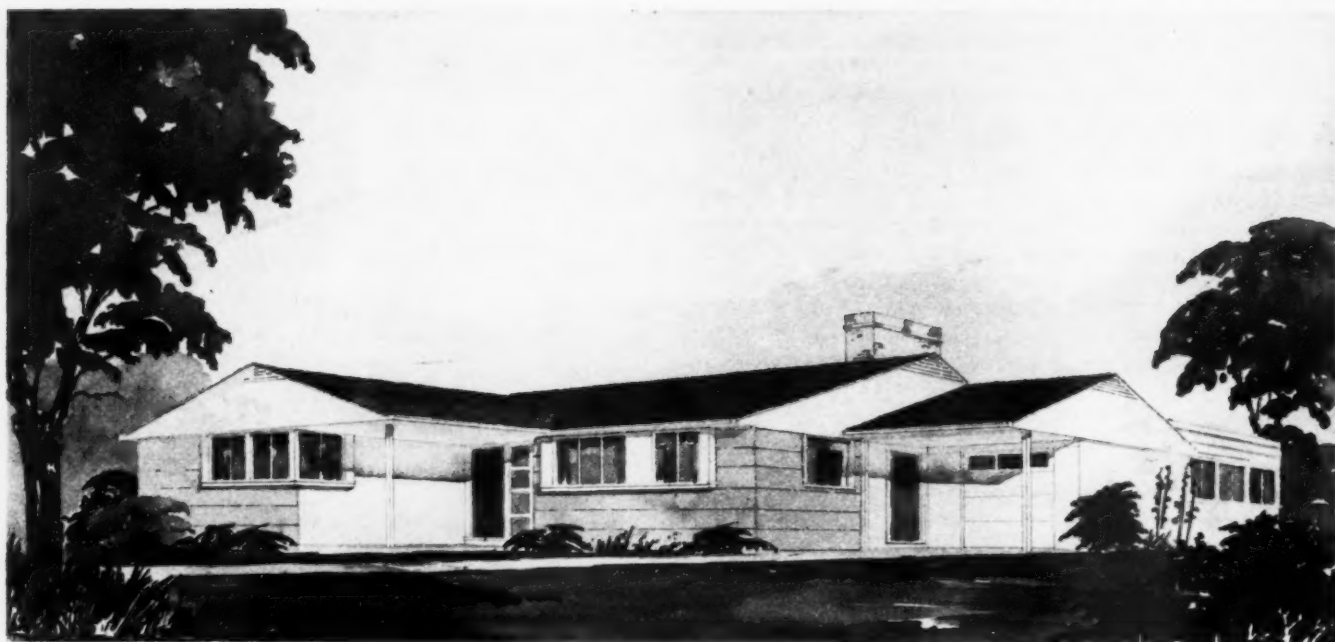
Since the heating of domestic hot water indirectly from the heating boiler, was presented in the August issue of the *American Builder*, very little will be said in this article. However, domestic water may be heated indirectly by a hot water heating system providing the boiler water temperature is maintained at 180 degrees Fahrenheit or more. With anything less than 180 degree water, satisfactory results cannot be obtained. It might be well to state again that better results will be obtained and less service required if the boiler is used the year-round rather than just during the heating season.

The data and information used in figuring and designing the one pipe forced hot water heating system was obtained from tables and charts shown in the Guide published by the American Society of Heating and Ventilating Engineers and from the Bell and Gossett Handbook.



CONVECTOR installation here conforms to curvature of window installation and throws heat upward to counteract cold from glass.





LOW pitched roof and wide double coursed shingles on house above, gives the much desired low rambling character for today's market.

## Custom Design Utilizes Standard Materials

### Anicka BLUEPRINT HOUSE No. 8

**A** GREAT many individuals these days have hobbies that occupy much of their time. However, it is not often that a person is able to have their hobby pay off in dollars and cents. In the case of Walter T. Anicka, architect of Ann Arbor, Mich., who has designed the house shown on this and the accompanying pages, his hobby has been houses of all kinds and types, but preferably the type that is small and compact and which can be kept well within reasonable cost limitations.

He has a wonderful time arranging unusual effects and floor layouts within limited overall dimensions, and then creating a covering which is both distinctive and practical. While his houses follow a general pattern, each one is different in appearance from its predecessor.

Early in the practice of architecture, his imagination was captured by the possibility of the small house as being the medium for sound architectural expression. Naturally, after he opened his office, he felt that the psychological moment had arrived to let himself go—and he did. In keeping with many of his earlier designs, his latest ones embrace the long, low pitched roof and many other of the essential elements of the rambling one

story house that is so popular today.

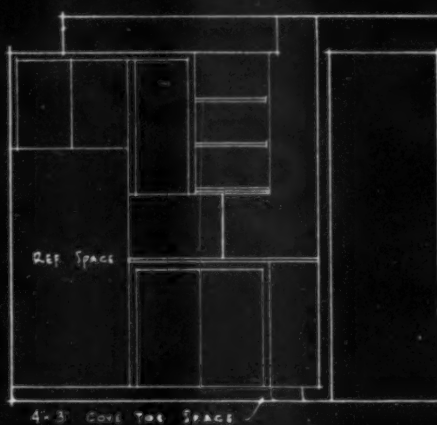
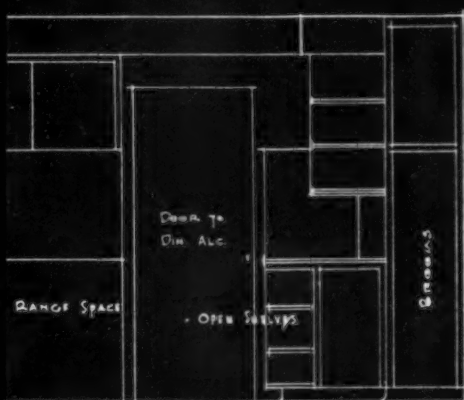
Referring to the house shown on this page, Mr. Anicka says that it is the type that can be successfully used by small operative builders because of its compactness and simplicity, and yet, including the garage it can be built on a 60 foot wide lot. Many of the features of a custom built house are included.

Under the present uncertain costs and materials, economy of construction was of prime importance. Stock materials in standard sizes have been used throughout. Room sizes have been predicted upon standard joist sizes in order to eliminate all unnecessary cutting. This has the advantage of shop assembly methods for the individual operator.

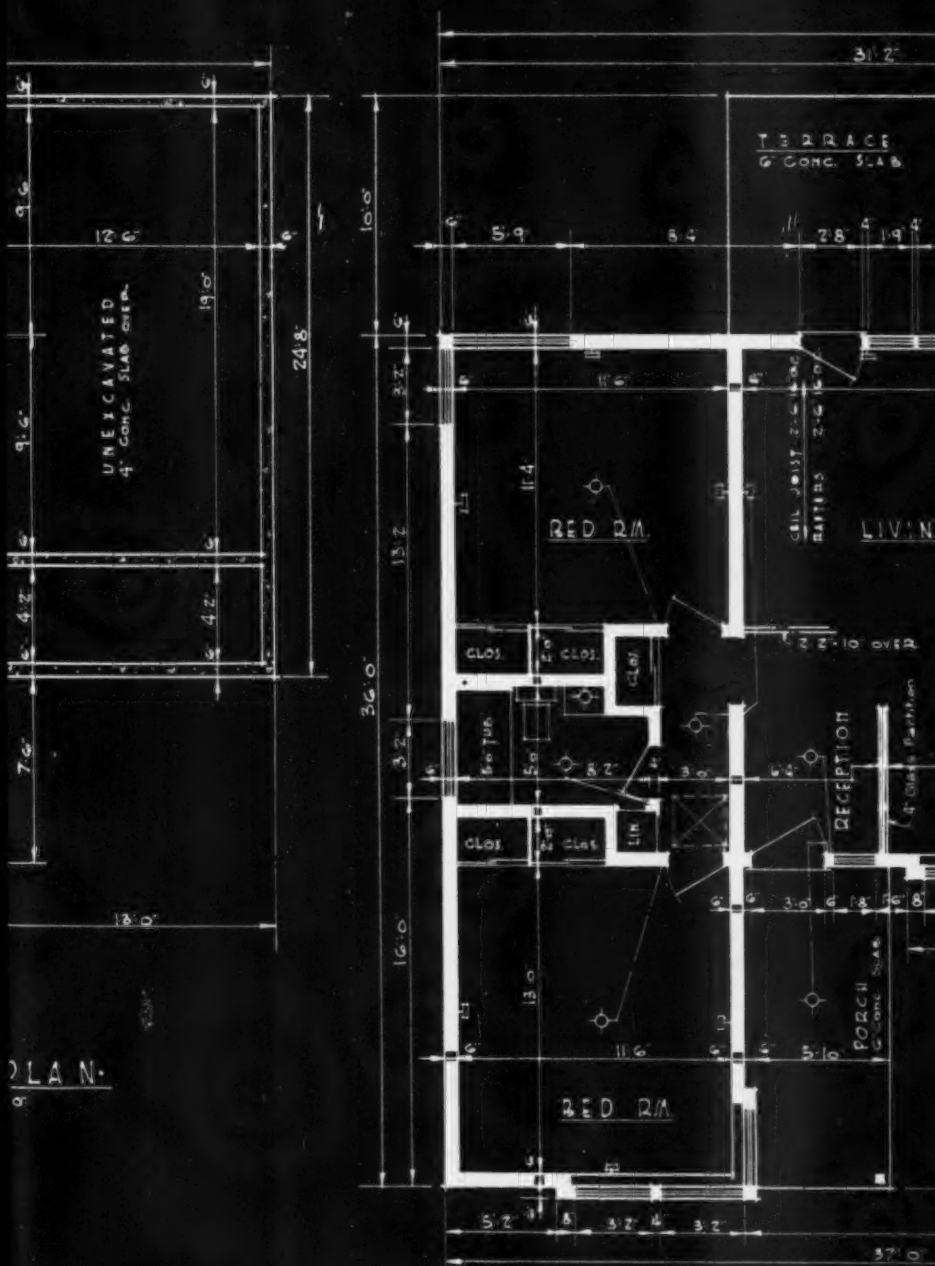
Low pitched roof, wide double coursed wood shingles on side walls in contrast to flush plywood under porches gives the much desired low rambling effect. Simple cornice and detailing offers ease and speed of construction. Novel use of ordinary materials have been used to create a modern feeling and freshness in design. The interior is compactly arranged with the minimum length to partitions. A spacious feeling is obtained in the plan by combining several rooms.





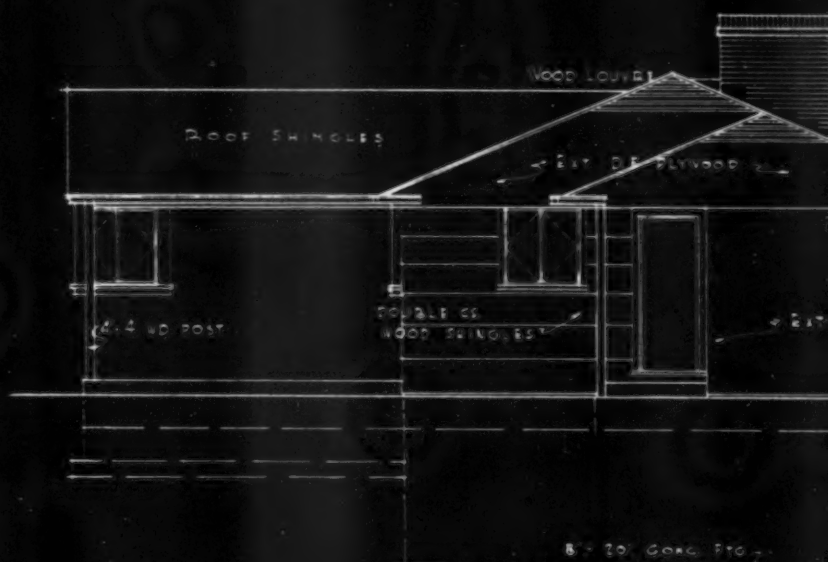


• KITCHEN DETAILS:

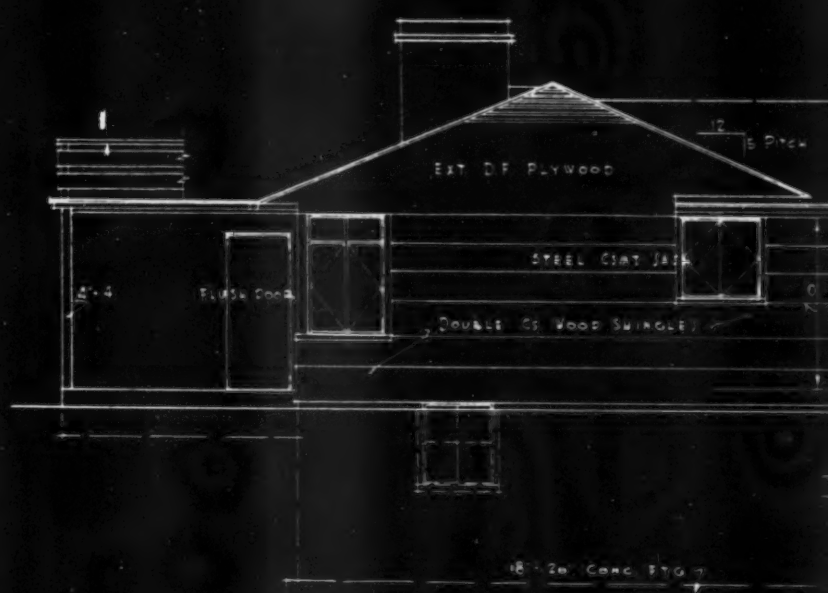








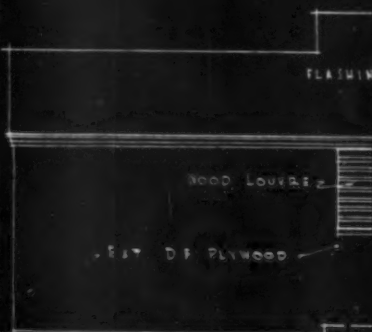
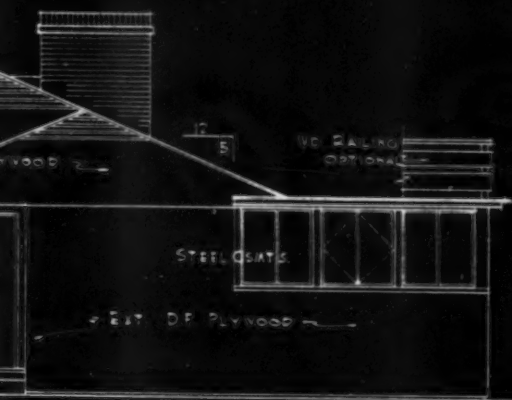
RIGHT ELEVATION



LEFT ELEVATION

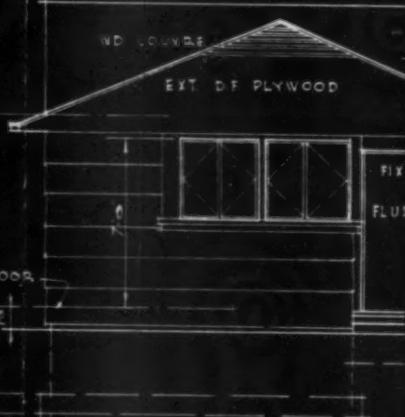
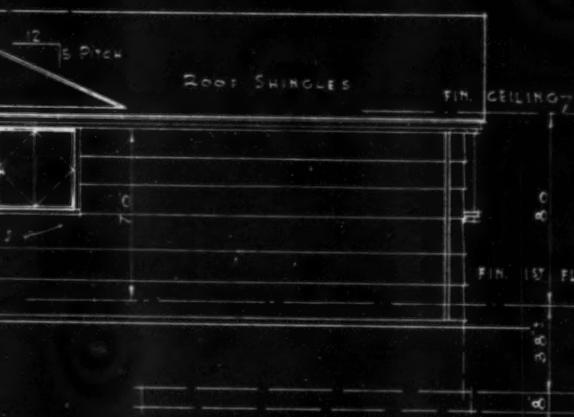


FIREPLACE DETAIL



MIN. FOOTING DEPTH  
DETERMINED BY LOCAL CODE

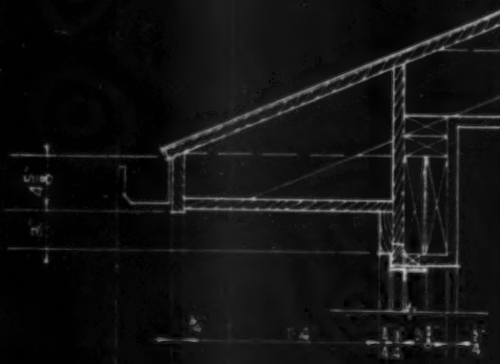
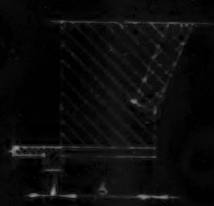
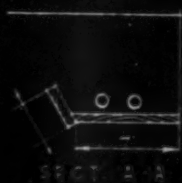
ELEVATION



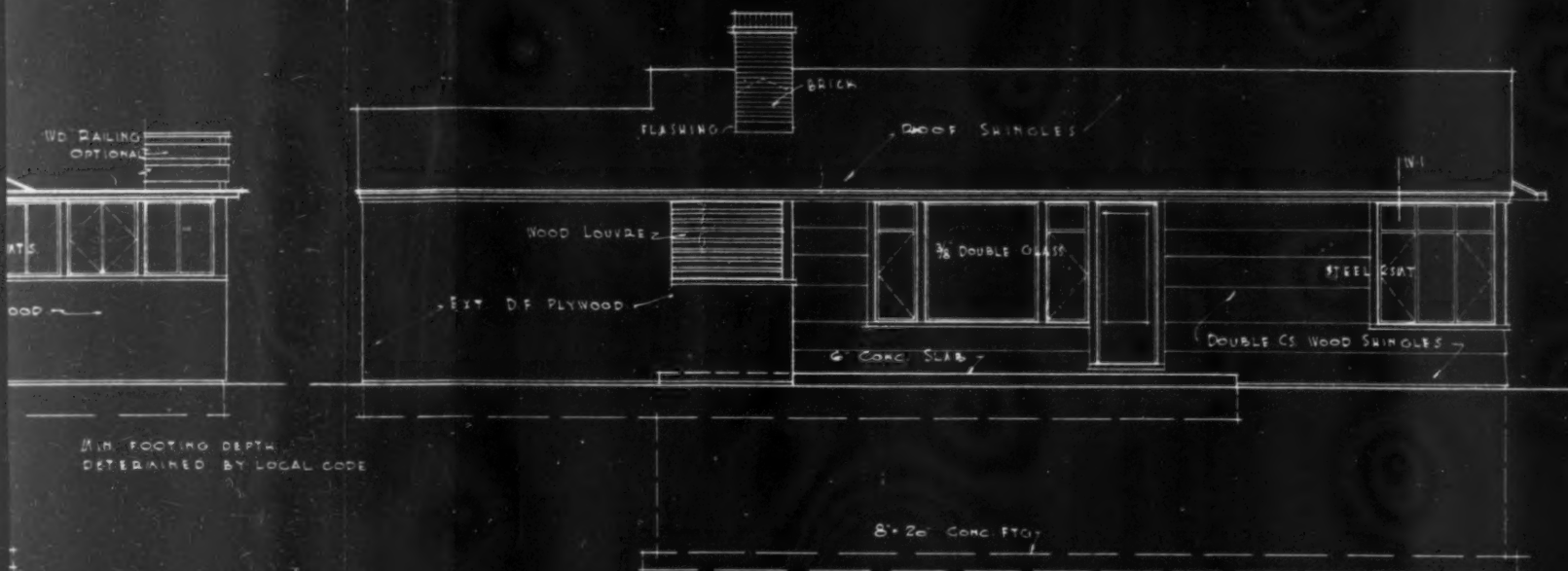
ELEVATION

FRONT E

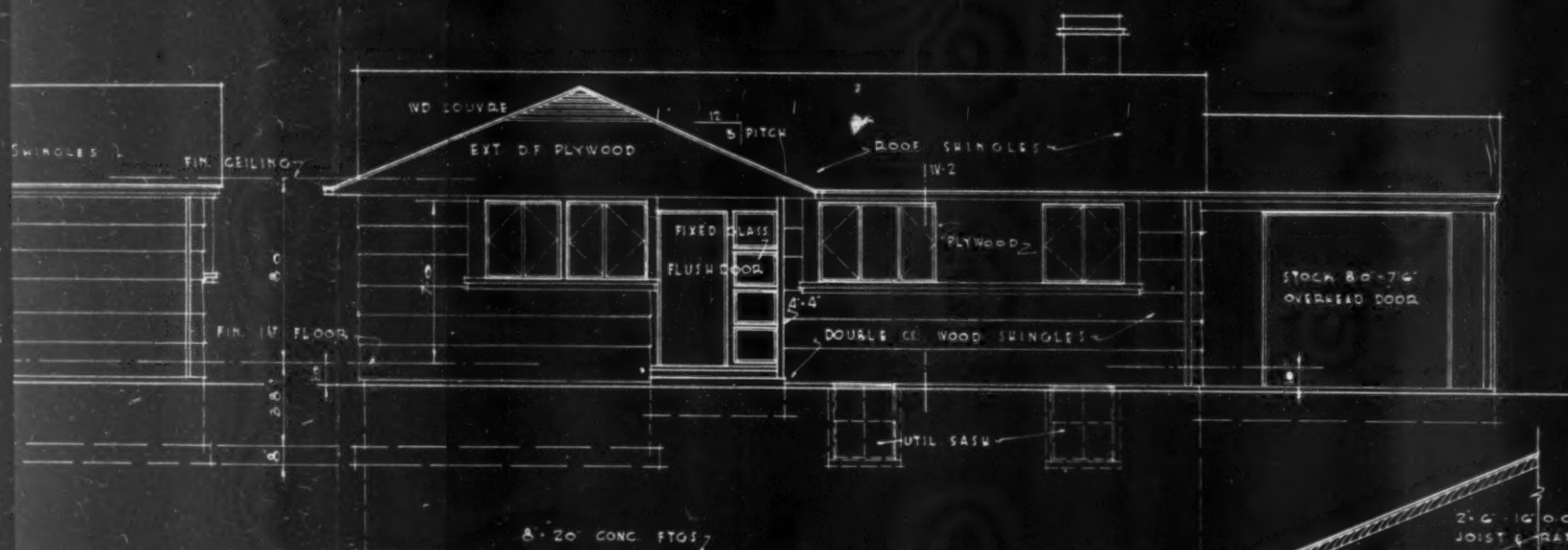
SCALE 1/8" = 1'-0"





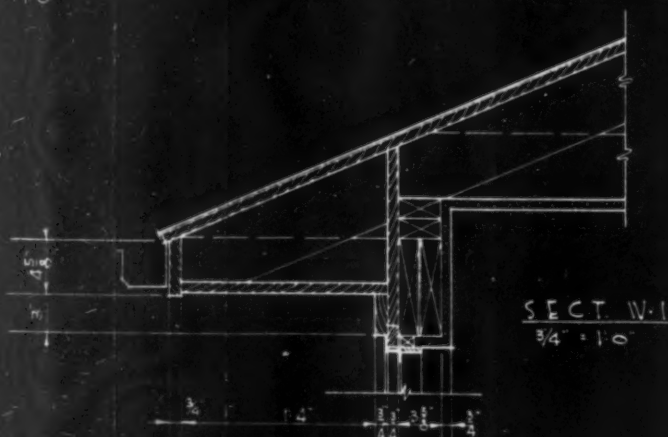


REAR ELEVATION

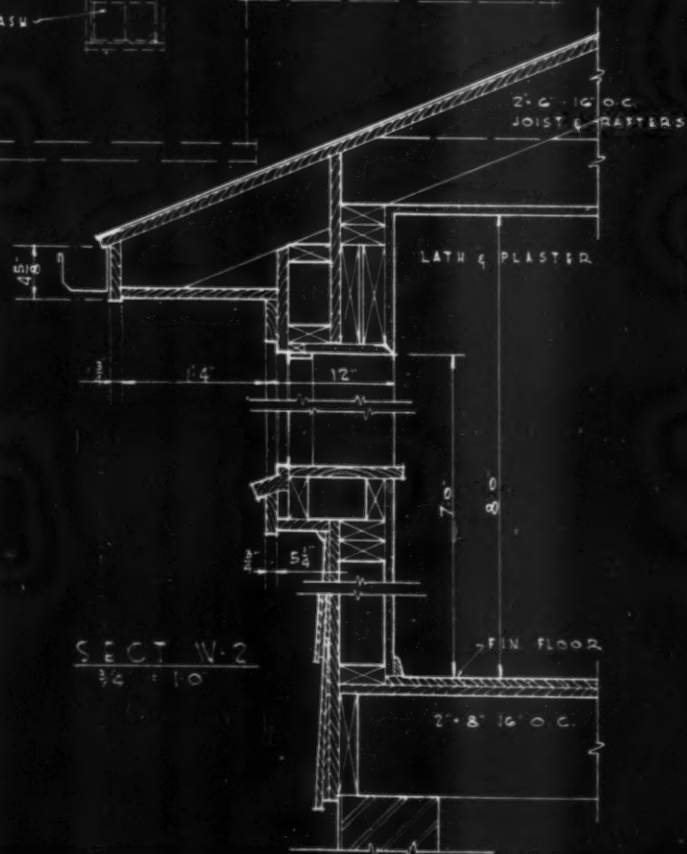


FRONT ELEVATION

SCALE 1/8" = 1'-0"



SECT. W-1  
3/4" = 1'-0"



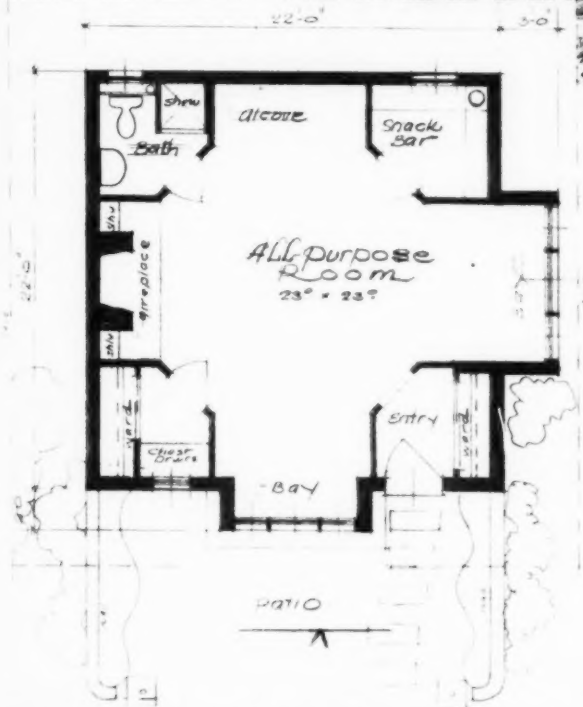
SECT. W-2  
3/4" = 1'-0"

DESIGN  
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DESIGNER'S rendering of exterior is shown at right. Unique arrangement of floor plan shown below with large "all purpose room" in center, conveys an air of spaciousness within limited area, and yet provides for the basic necessities.



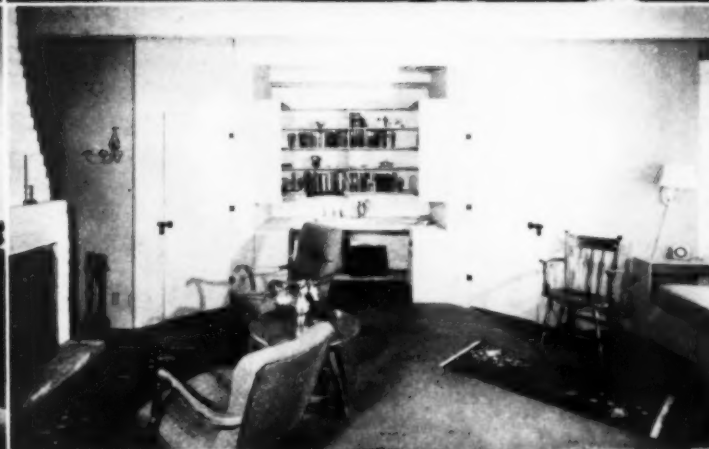
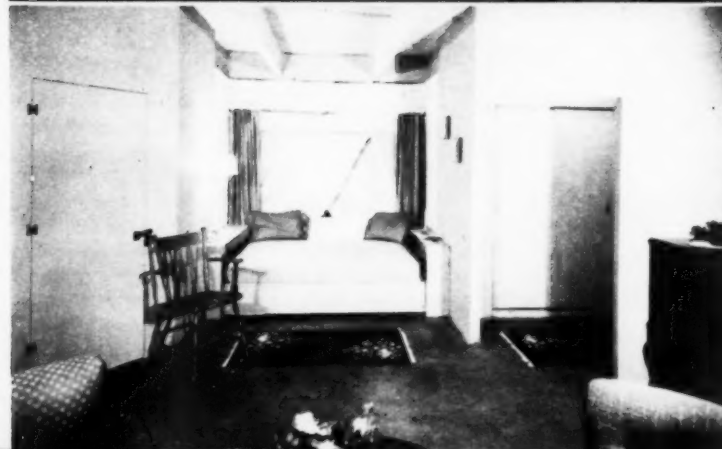
## One Room Guest House



**D**ESIGNERS, architects and builders in some of the more congested areas are endeavoring today to combat the tide of rising costs in residential construction by merging a number of rooms into one large room in order to reduce the overall square foot area.

The "all purpose room" which dominates the plan of the small guest house shown on this page, which was designed by Ralph A. Vaughn of Los Angeles, Calif., is another of the many ideas that have been tried in making a small house appear larger. Considered primarily as a guest house, it could now be built on the rear of a lot for \$2,500 or less for the use of the average married couple. Later when conditions warrant, it could be converted to other uses.

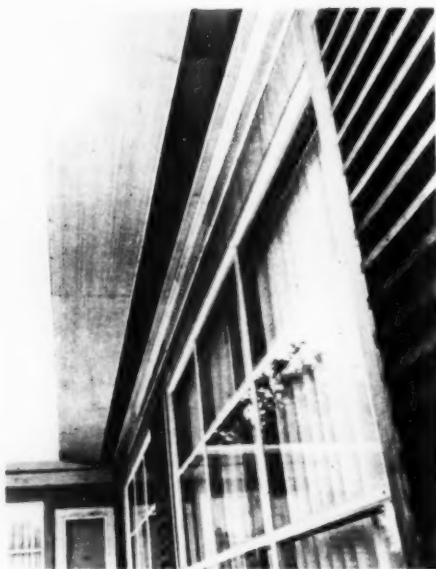
THE respective bays adjoining "all purpose room" are clearly indicated as to their function in the four photographs shown below.





LOW sweeping, horizontal lines with just enough vertical emphasis in the windows and louvers produce a pleasing exterior.

## Modern Was Adapted With Economy in View



DETAIL view of roof soffit with continuous screened strip for ventilating this area.

**To obtain maximum liveable area commensurate with economy of construction, a conservative Illinois lumber dealer turns to modern for the design of his own home to meet these requirements**

**W**HEN C. A. Thompson, a practical and conservative lumber and material dealer of Urbana, Illinois, decided to have a new house built for himself and family, he had a number of specific requirements to be met.

Prior to their moving into the new modern house shown on these pages, the Thompsons had owned a standard traditional type dwelling which contained a full basement, first, second and attic floor. This necessitated a lot of stair climbing—which was exactly the thing that they wanted to avoid.

Having a growing family, ample space had to be provided for their needs, and yet, with a limited budget set aside for building requirements, it became mandatory that they exercise economy in planning, design and construction. In addition they wanted their new home to be liveable with housekeeping kept to a minimum. Large rooms serving a dual purpose were also a must requirement.

With these thoughts in mind, Mr. Thompson conferred with his architect friend, James T. Lendrum, who is now serving as Associate Coordinator of the Small Homes Council, University of Illinois. In the capacity of consultant, Mr. Lendrum moulded this thinking into the contemporary form shown here.

On a cost plus basis, George R. Bennett, contractor, Champaign, Illinois, started excavating the site on May 1, 1946. On October 10, 1946, the Thompsons moved bag and baggage into the completed structure. While this does not break a record for speed, nevertheless, in this day of shortages of both labor and materials, when the normal completion time for



SEMI-OPEN vestibule formed of fluted glass set in a wood frame, extends up to the angled roof soffit forming canopy between extended wings of the front wall of the house.





A BANK of large windows on garden side permits abundance of light and air in all rooms and complete use of outdoor garden and lawn.

a home exceeds this by a great deal, then it is worthy of interest.

It is interesting to note that the matter of economy was never lost sight of, but was kept uppermost in the minds of both the owner and the builder at all times. This was proven by the fact that the cost for the house and garage, including all items except the lot, landscaping and the interior decorating, did not exceed \$8.00 per square foot.

Mr. Thompson attributes much of the economy to the flat roof arrangement, in which one set of members takes over the duty of supporting both ceiling and roof, eliminating the necessity for an entirely separate set of roof

rafters. Another feature was the omission of exterior side wall sheathing. The  $\frac{3}{4}$  inch thick striated Weltex plywood that was used for exterior finish was then glued to the face of studs and securely nailed. Sisalation paper was then applied to the inside face of studs as a moisture barrier, and  $\frac{1}{2}$  inch thick gypsum board nailed to studs over paper. This serves as the inside finish for all rooms except where striated and other types of plywood have been used to obtain unusual effects.

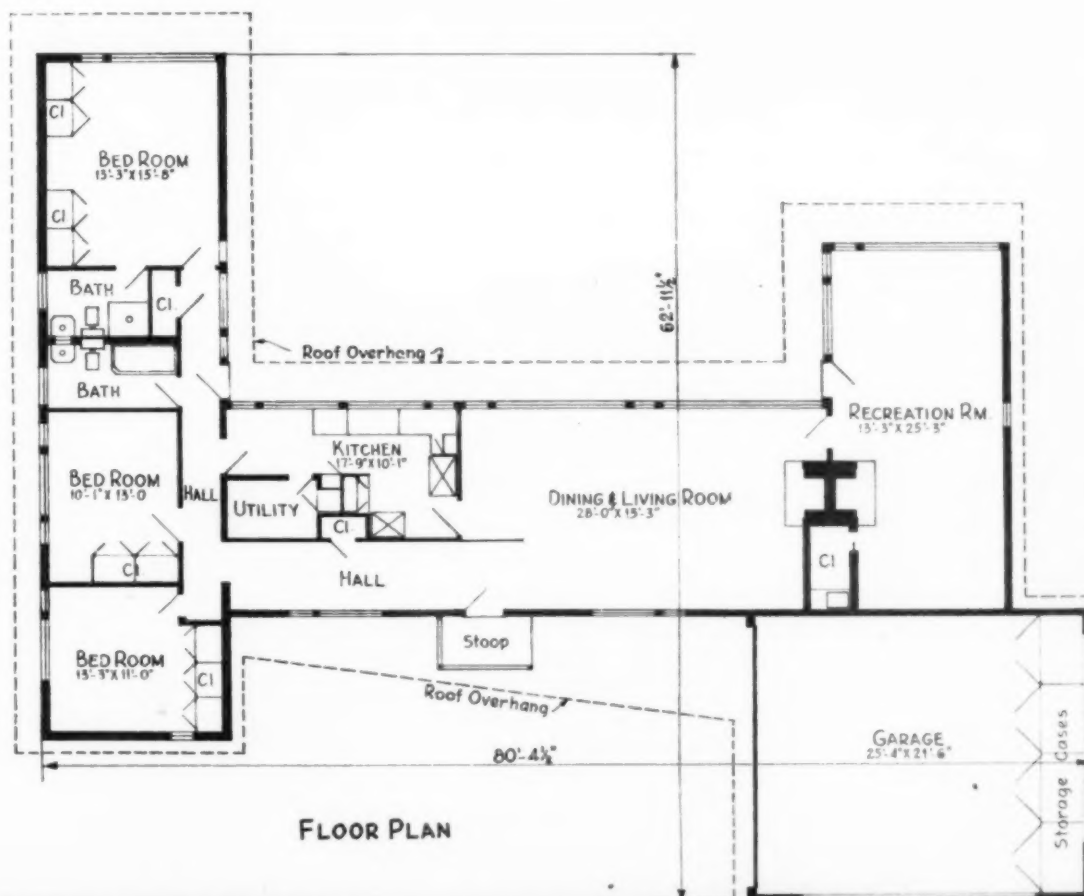
Three-inch thick cotton insulation has been used between studs on all exterior walls and also between interior partitions separating the bed-

rooms and bathroom so as to act as a sound barrier.

As added protection the five ply built-up roof has been painted with a heavy coat of aluminum paint to deflect the direct rays of the sun. Ventilation of the area between roof and ceiling is obtained through the continuous screened opening located in the soffit of the roof overhang.

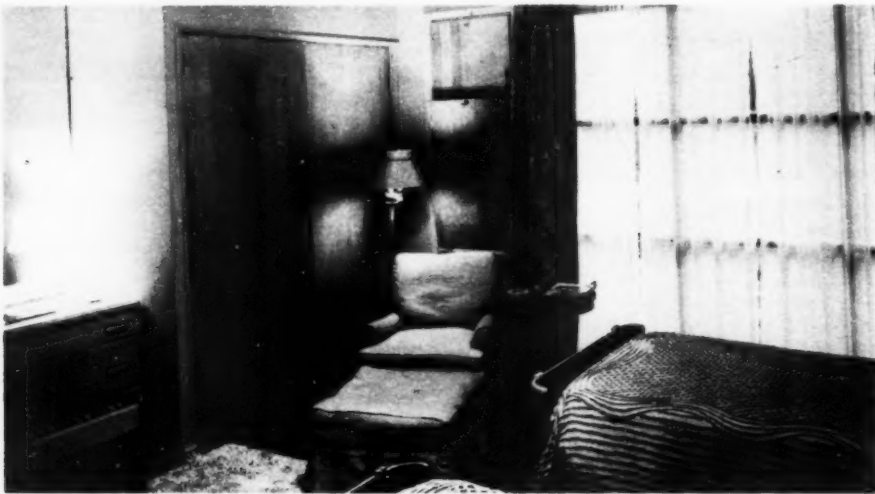
Window frames are of unusual design. Simplicity has been the keynote. They are built of finished 2 x 4 inch members which are rabbetted at each end to receive the double glazing. All glass panes are fixed. The glass on the inside face of frame is secured to it with metal clips, permitting the

PLAN of house turns in on itself. Living is at rear, with attention focused on formal planting set in court formed by the two projecting wings. The house plan is completely functional, in its simplicity, with the quiet area entirely separated from the activities and service portion.





IN living room, windows on each side wall are open to the view. Fireplace and bookshelves with mirror above feature end wall.



CLOSETS with sliding doors separated by dressing table occupy one wall of bed-room.

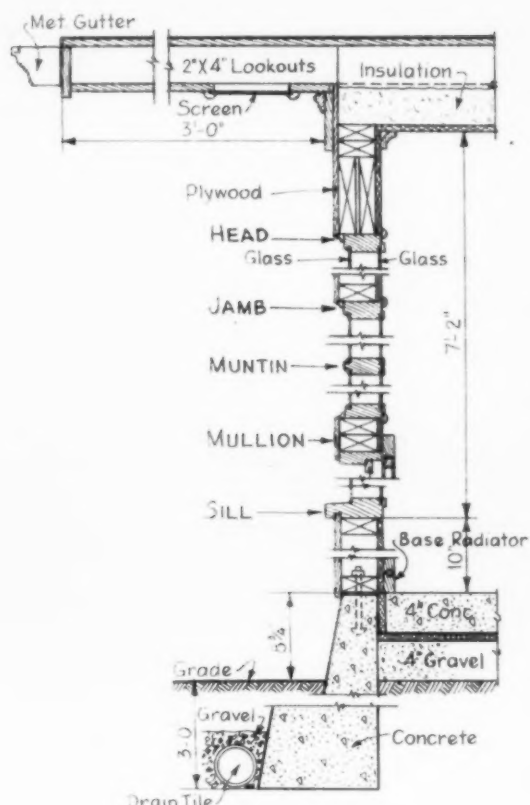
glass to be removed for easy cleaning.

The house is of the basementless type, placed on concrete trench walls with a 4 inch thick concrete mat over-all which is poured over a 6 inch bed of gravel. Slab is separated from the wall by an asphalt board moisture barrier. Concrete slab is covered with asphalt tile in front hall, child's bedroom, kitchen, bath and utility room. All other areas are covered with a heavy mat and carpet.

The plan of the house is so arranged that living is focused on the attractive back yard. What goes on in the front or sides is of secondary importance to the rear. An important fact about this particular house springs from the careful arrangement of floor space.



OPPOSITE end of large living room is devoted to dining. A certain amount of privacy is obtained at entrance door by the room-height fluted glass screen shown at left. Access panel for ease of serving shown at right.



WALL SECTION

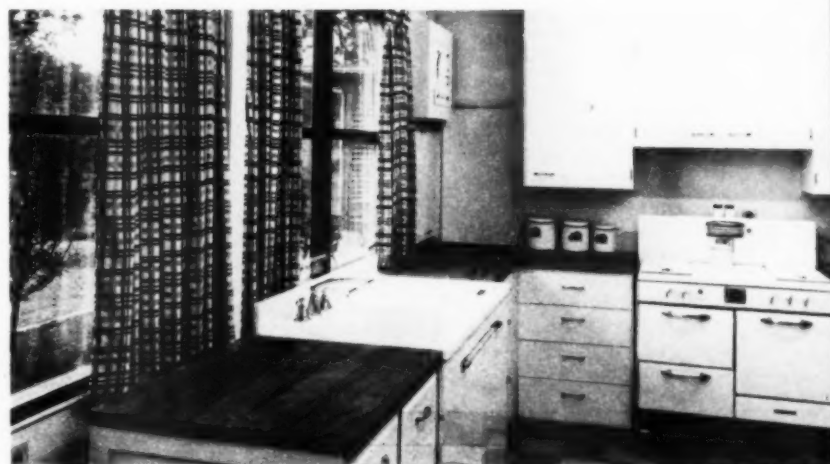
WALL section shows roof construction and window details.

It is not a large house in terms of actual footage, but due to the flowing plan and modern decoration the interior seems positively spacious. Entrance is directly into the living room, though a certain amount of privacy results from the use of a fluted glass screen on the opposite wall from the door. The dining area, actually a part of the living room is adjacent to the efficient kitchen. Two bedrooms and baths located on the east end of house form a wing which projects into the rear of the plot as one enclosing wall of the outdoor living space. The recreation room forms another side of the U-shaped enclosure.



DETAIL of panels in back of louvres.

VIEW in bathroom.



WELL arranged kitchen has everything to function perfectly.

**LARGE** recreation room adjoins living room where informal entertaining may be carried on, even to preparation of drinks or snacks, in alcove adjoining fireplace without disturbing children in opposite end of house.





# OAK HILL

**Vision, enterprise and native Yankee ingenuity have played important roles in continued growth of Arnold Hartmann's superior New England residential community**

**M**ORE than a quarter century ago an enterprising New England builder conceived the idea of converting his own family estate into a country club center for a "model village." This was in 1920, when Arnold Hartmann, suffering from financial reverses, faced the alternative of selling in the then depressed open market, or realizing a long-cherished dream to create a residential development based on a long-term and orderly pattern of growth.

It was under these circumstances that Oak Hill Village, which now consists of more than 200 acres of gently rolling and beautifully wooded land, came into being. Located in Newton Centre, Massachusetts, adjoining fashionable Chestnut Hill and opposite the famed Charles River Country Club, Oak Hill originally was a district of vast estates like Mr. Hartmann's, with plenty of space for 10 to 15 thousand foot lots, only seven miles from Boston.

He organized a trust of local business men; sold them the idea of establishing a country club with a championship tournament golf course; sold them his own home for the club, and took back a 100 per cent mortgage. The trust issued bonds, each member taking two, one as a certificate of membership. The plan called for 500 members at \$1,000 each, and almost immediately went out of existence when the time limit expired with only 88 members. Mr. Hartmann "saved the day" however by personally underwriting the additional \$162,000.

When it seemed assured that the club would be a success, he acquired some 190 acres from surrounding estates, took the name Oak Hill Village, and brought in some of the best architectural and landscape talent available, including renowned Arthur A. Shurcliff (landscape architect for the Williamsburg, Virginia, restoration) to draft a master plan.

Today, after "complete inactivity" during the war years, Arnold Hartmann is again building houses in this quarter-century-old experiment



BUILDER Hartmann stands beside sign on site of recently completed homes for veterans.



PREWAR scope of operations of this builder is indicated by group of houses shown above.



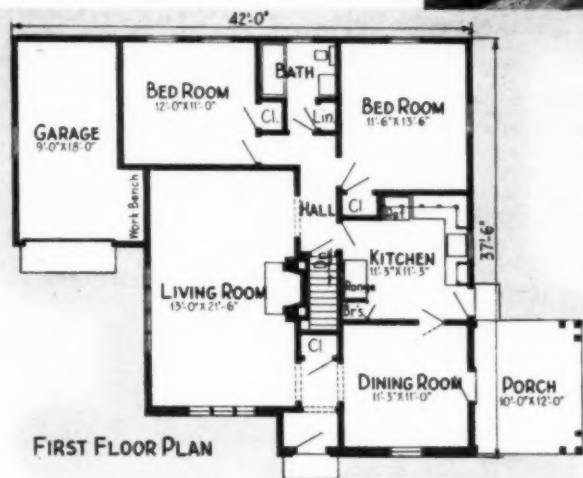
CONSTRUCTION of roads and houses is carried on simultaneously in new development.

# VILLAGE *a model suburban community*



HOMES shown above illustrate skill with which Builder Hartmann varies the designs, while maintaining uniform overall appearance.

in model community planning. Like other builders of high-quality developments, he is too firmly schooled in the ethics of good construction to compromise on quality in building homes, even when encumbered by the handicapping restrictions that have beset home builders during re-



NATIVE stone excavated on site was used by builder in facing the front wall of this attractive one-story, five room design.

PLAN, at left, of house shown above, reveals a typical layout of rooms arranged in a manner consistent with prewar thinking.





ONE of the more pretentious homes just completed in Oak Hill Village is shown above.



CONVENTIONAL features associated with this type house, plus others, are in this plan.



SITE field stone used in construction of chimney and side walls dominate design and plan of modest home shown above.

AN ABUNDANCE of cross ventilation is obtained in all major rooms. Unusual feature of plan is the dining room dais.

cent years. But even with his experience, and reservoir of Yankee ingenuity, thrown into the scale against high wages and prices, labor conditions and material shortages, this long-experienced builder is dangerously close to the borderline in his attempt to build decent, modest homes for veterans, at prices they can afford to pay.

The 100 veterans' homes now under construction in Oak Hill Village are located on three recently built roads adjoining the main part of the development. Close by is Mr. Hartmann's highly restricted subdivision, Baldpate Hill, with its famed 25-mile radial view. Beyond lies Fox Meadow, his medium-priced home community, stressing Cape Cod designs, air-conditioning and building fronts faced with stone put to a practical use to offset the heavy costs of rock-ledge excavations. The veterans' community constitutes his efforts to fit-in "emergency" houses to his original "master plan" for a New England village of choice, colonial homes, tailored to their sites, interestingly and attractively planned around a country club and recreation center, with schools, library, theater, and shopping center in due course.

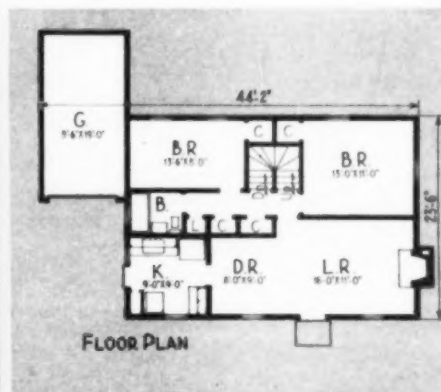
There is no grasping the full import of what this past president of the Home Builders Association of Greater Boston, and long-time director of the National Association of Home Builders, has tried to do since the end of the war, without viewing his current housing battle against the background of the "master plan" with which he entered the development field in 1920. Realizing at the outset that families were largely dependent upon the wisdom and foresight of the developer for their future comforts and protection, Mr. Hartmann studied community requirements all over the United States before plunging into his venture. He describes residential developments as "small islands connected by streams of traffic." Most urban communities he alluded to as collections of what were once several real estate developments, each with its own street pattern and plotted with little regard for the location of schools or the need for local shops.

All of the veterans' homes are equipped with circulating hot water heating systems, air-conditioning, and gas stoves, refrigeration is left up to the buyer. And Mr. Hartmann is already planning tomorrow's homes. For the first time in 25 years, he is thinking of a place in Oak Hill Village for the contemporary modern "functional" houses now coming off the drawing boards, with radiant heat.



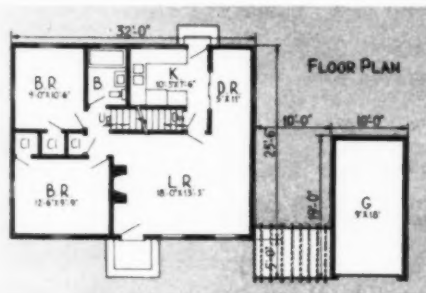


HOMES built primarily for veterans are also placed in the midst of all the natural beauties that surround Oak Hill Village.



SHOWN to the left, with the plan above, is one of the 100 one and one-half story veterans' homes now under construction in Oak Hill Village. This one appears at the left in the street scene (top).

HOUSE shown at the right, with plan below, is another version of Builder Hartmann's veterans' homes. Following in general the pattern established for the street, shown at top of page, it varies from the others merely in size and position and in the respective positions of the different elements of the house.





BEAUTIFULLY simple fireplace keynotes the quiet atmosphere of living room. Large windows provide ample natural light.



## Cleveland Builders' "Blue Ribbon Bungalow"

THIS home, which falls into no special classification but presents some of the most modern ideas available in houses today, was chosen by the Home Builders Association of Cleveland as its "Blue Ribbon Bungalow." The Cleveland Chamber of Commerce sponsored its erection at the 1947 Greater Cleveland Home and Flower Show. Display of the home was confined primarily to its interior because of space limitations within the exhibit hall.

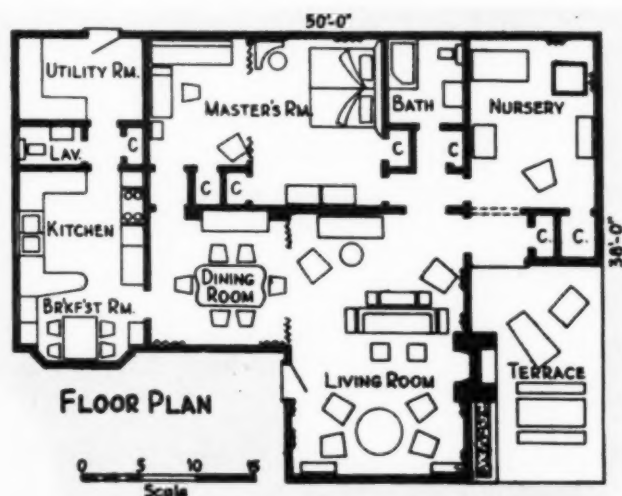
Instead of building a house that would be considered a G. I. home, a low-cost home, or a \$12,000 home, the home builders designed a house to display to good advantage the quarters desired by the average family—a living room, dining room, bedrooms, den, and kitchen. The combination living and dining room is unusually large, with plenty of windows for natural light. The more than average size bedrooms and ample closet space throughout proved popular with show visitors. The house may be built with or without a basement. The different room layouts served to show the public what can be done in any house with modern materials and workmanship.

LEFT: View of dining area through one of living room windows.

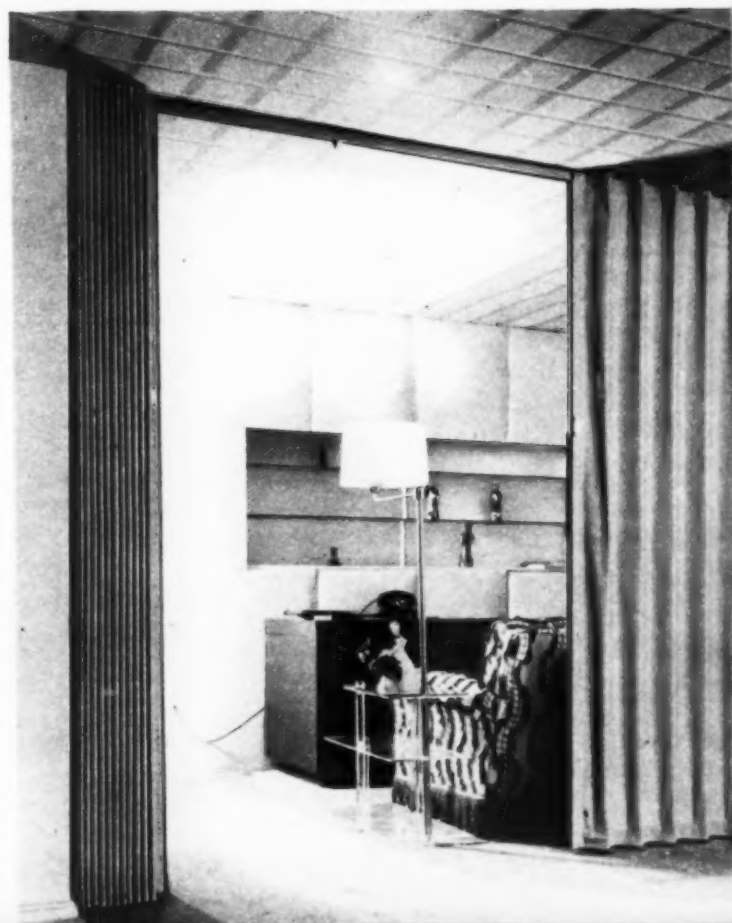


ABOVE: The kitchen featured equipment for any average new home. BELOW: Folding doors installed to separate bedroom from den.

**Most modern ideas in home design, interior finish and decoration exhibited by Home Builders Association model house at Greater Cleveland Home and Flower Show**



MODERN trends were recognized in choice of a one-floor plan.





## "We Sold 13 Over Sunday"

**Al LaPierre and Jack Peterson develop a big-value small house of concrete, radiant heated, delux equipment. They find it offers "more home for the money" and wins acceptance even at today's costs**



ALBERT L. LAPIERRE (left) and Jack Peterson, partners with Carroll Hillman & Hedlund, of Seattle, in building 66 "Permatherm Homes."

Above is one of the popular models selling, fully equipped, at \$8,950. Lower view shows carpenters at work on a 3-bedroom model.



**S**OMETHING different, something better in a truly post-war home was what these two resourceful young Washington State builders had in mind as they developed their "Permatherm" home.

Having confidence that production costs could be cut and quality built-in through the application of scientific methods, they dreamed out a new-type masonry structure. They tested it, built it—in fact, they built 66 in an attractive suburban group. And then they gave their brain-child the final "acid test" in today's sluggish buying market. They advertised these homes dramatically, specifically and in full detail (including prices and terms) in the local newspapers; and very promptly sold out the entire development.

Thirteen homes were reported sold over one week-end; and on several Sundays, during the time the advertising was running, more than a thousand automobiles were counted in the development where these new homes could be inspected. They very definitely had a popular appeal, especially to the younger group of homeseekers.

The prices quoted were \$8,950 for the 2-bedroom house with full delux equipment and \$12,500 for the delux 3-bedroom model. FHA insured loans called for a down payment on the smaller home of \$250 and a complete payout in 25 years at \$65 per month (\$57.50 to veterans under the Veterans Administration plan)



MINIMUM lot size for these fully-equipped radiant heated two and three bedroom concrete block houses is 65x175 feet.

to cover all charges including interest, taxes and insurance. These figures include about \$1000 for a full complement of modern home appliances, which are included "as a package" within the home mortgage financing, and give today's buyer a big advantage over the old way of acquiring these needed home helpers one at a time on usurious installment terms.

Plot sizes run large, 65 by 175 feet minimum for the 3-bedroom houses. These contain 1,134 square foot floor area plus 500 square feet of attic storage space conveniently reached by stairway from utility room. No two houses are alike in exterior appearance, although all are based on four standard floor plans developed by the Wollander designing service for operative builders.

Work of opening up the 40 acre tract started February 1, 1947, when these developers began the land-

DISPLAY ads in the Seattle newspapers bring out hundreds of live prospects.

LAND clearing and grading go on as street after street is carved out of the raw.

## Home-ly Observations

FOR THOSE  
"Dubious Ducks"



**DON'T SELL SEATTLE SHORT!**

Choice building sites and homes are going fast. Don't be the one to tell your grandchildren: "See that place over there? I could have bought that for a song . . . The lucky bird who bought it!" The "lucky birds" can years from now are the ones who use their heads and buy today.

Introducing  
Something New  
In Home Construction  
In Home Heating  
In Purchase Terms  
In Living Comfort  
For Veterans

**PermaTherm**  
PERMANENT CONSTRUCTION  
CLEAN CONSTANT HEAT

**A New Name For  
A New-Type Home**

PERMA for Permanence—Built of  
Graystone Dares Masonry wa-  
terproof blocks. Hand-laid  
color gables, shale roof.

THERM for Controlled Heat—  
Imbedded radial heat coils  
under asphalt tiled flooring.  
Perfect MODULOW control.

WE ARE PROUD TO ANNOUNCE THE ULTIMATE IN MODERN HOMES AND HEATING. These two-bedroom PERMA-THERM HOMES will last a lifetime. The revolutionary heating system, American Radiator hot water, supplies radiant heat from copper coils imbedded in floors. MODULOW controls adjust automatically to weather changes, maintaining constant comfortable room temperatures—no drafts, no dirt streaks, no dust, no registers, or radiators to clutter rooms. Comfort unsurpassed. **SUPERB VIEW—LANDSCAPED GROUNDS** . . . Built in a natural parkway, landscaped with shrubs, patios, trellises, terraces. Sturdy homes nestling in nature's own setting. **EVERY HOUSE DIFFERENT**—Architecture by the noted **WOLLANDER**.



### 23 STAR FEATURES

- 1—SPACIOUSNESS—1124 sq. ft. overall plus 500 sq. ft. attic.
- 2—PERMANENCE—Built of Graystone Dares waterproof blocks.
- 3—MODERNITY—Color gables, shale roof.
- 4—LANDSCAPED GROUNDS—Sturdy homes nestling in nature's own setting.
- 5—EVERY HOUSE DIFFERENT—Architecture by the noted WOLLANDER.
- 6—PERMA for Permanence—Built of Graystone Dares Masonry waterproof blocks. Hand-laid color gables, shale roof.
- 7—THERM for Controlled Heat—Imbedded radial heat coils under asphalt tiled flooring. Perfect MODULOW control.
- 8—MODULOW—Automatic temperature control.
- 9—AMERICAN RADIA-TOR—Hot water heating system.
- 10—COPPER COILS—Imbedded in floors.
- 11—NO DRAFTS, NO DIRT STREAKS, NO DUST, NO REGISTERS, NO RADIATORS.
- 12—COMFORTABLE ROOM TEMPERATURES—Maintained constant by MODULOW controls.
- 13—STURDY HOMES—Built in a natural parkway, landscaped with shrubs, patios, trellises, terraces.
- 14—SPACIOUSNESS—1124 sq. ft. overall plus 500 sq. ft. attic.
- 15—PERMANENCE—Built of Graystone Dares waterproof blocks.
- 16—MODERNITY—Color gables, shale roof.
- 17—LANDSCAPED GROUNDS—Sturdy homes nestling in nature's own setting.
- 18—EVERY HOUSE DIFFERENT—Architecture by the noted WOLLANDER.
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- 22—AMERICAN RADIA-TOR—Hot water heating system.
- 23—COPPER COILS—Imbedded in floors.

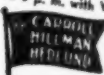
See this amazing PERMATHEM HOME TODAY

**PRICE \$8,950**

**ONLY \$250 DOWN**

**\$85 MO.**

Discover New Living Comfort—See Perma-Therm Homes at Ridge Crest  
Drive out Aurora to 155th, turn right, follow signs to RIDGE CREST. SALES OFFICE ON TRACT, 16002 6th N. E. SH. 6710.  
Open to 8 p. m. with Veterans in charge.

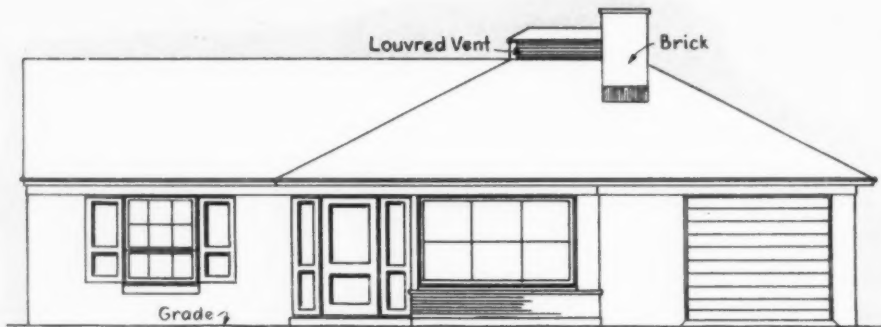


**CARROLL, HILLMAN & HEDLUND**  
Homes for Veterans  
Downtown Office, 8th Ave. at Times Square, Old Times Bldg.

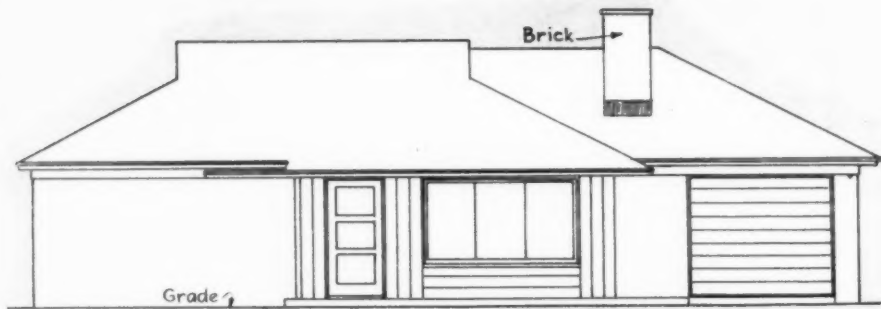




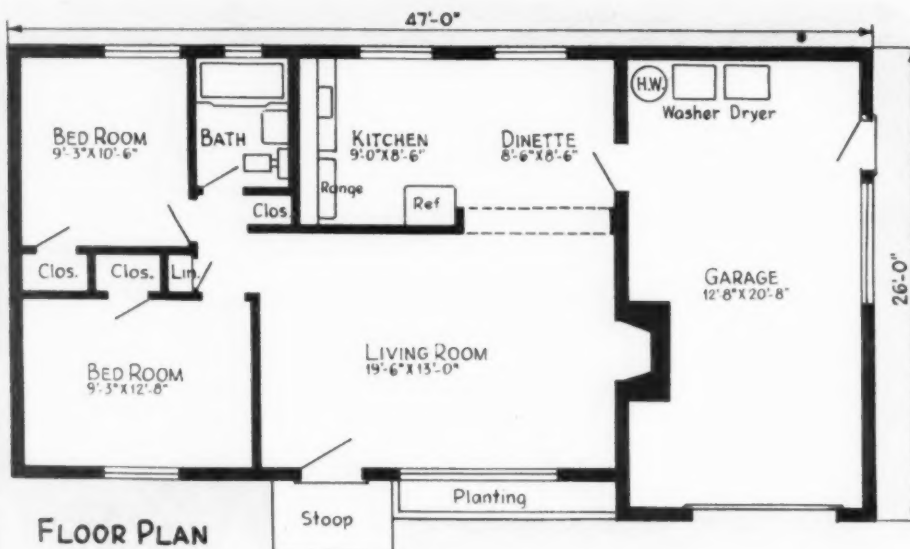
FRONT ELEVATION No. 1



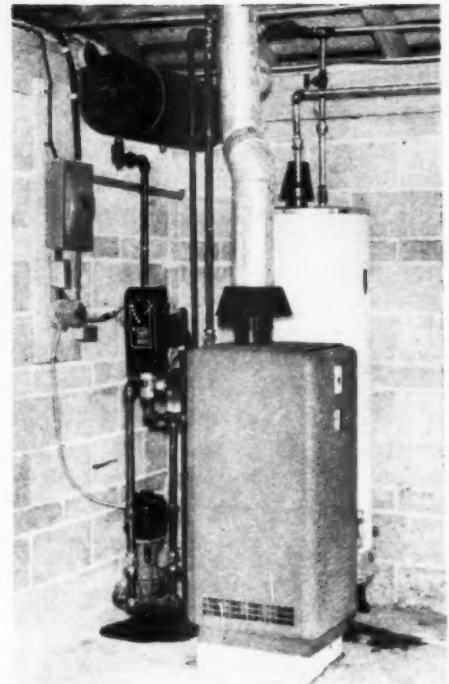
FRONT ELEVATION No. 2



FRONT ELEVATION No. 3



FLOOR PLAN



HEAT corner of utility room-garage. Boiler is gas or oil fired; hot water circulates by pump through coils; "Moduflow" control automatically adjusts to outside temperature.

clearing and street opening operation with two 10 foot blade Holt "Caterpillar" bulldozers, a Le Tourneau "Turnapull" wheel scraper and a rotary ditch digger. A smaller, 6 foot blade Allis-Chalmers dozer was used for excavating foundations and for leveling and smoothing the house floors inside the foundation walls.

The Permatherm houses are one-story high and are basementless. Walls are of waterproofed masonry units, 8" x 8" x 16", laid up accurately with narrow joints to give a smooth exterior. Inside, they are furred with wood strips for a 1" air space, then rocklathed and plastered. The floor of washed gravel and concrete, topped with asphalt tile, is insulated from the outside walls with 1/2" strip of fiberboard. Copper heating coils (3/4" Anaconda type L pipe) are laid out on the gravel pad before the concrete is poured. Hot water from a gas or oil-fired boiler is circulated through these coils to give uniform heat all over the house. The heat



TACOMA

AT LEFT is design "H" with 3 alternate elevations. No two houses are alike. Note how the concrete is "warmed" with wood accessories. W. H. Wollander, of Tacoma, designer.





Heat coils of  $\frac{3}{4}$ " copper pipe are laid over a 6" pad of washed gravel before concrete is poured. Note wood templet pipe bender. One pipe-man and helper do a house a day.

control is a weather thermostat outside the house in the north gable. It anticipates the need for heat, according to the changing outside temperature, and turns on more or less as needed.

Some of the features of these houses as brought out in the advertising are: Large living room with fireplace, view windows, Venetian blinds, shutters; two bedrooms, lots of closets; chrome and Colotyle



ABOVE is another of the popular floor plans and elevations for "Permatarm" homes.

bath; dinette; ultra-modern kitchen, Tracy stainless steel sink; large garage with flip-up door, windows, room for workshop. Each house, equipped with good appliances, included in the purchase price, contains: Servel refrigerator, Magic Chef range, Bendix deluxe washing machine, laundry trays, gas hot water heater, outdoor Whirl-away clothes drier. Special features are Rockwool insulation, weatherstripped

windows, Corbin rustproof hardware, door chimes, good quality plumbing and lighting fixtures.

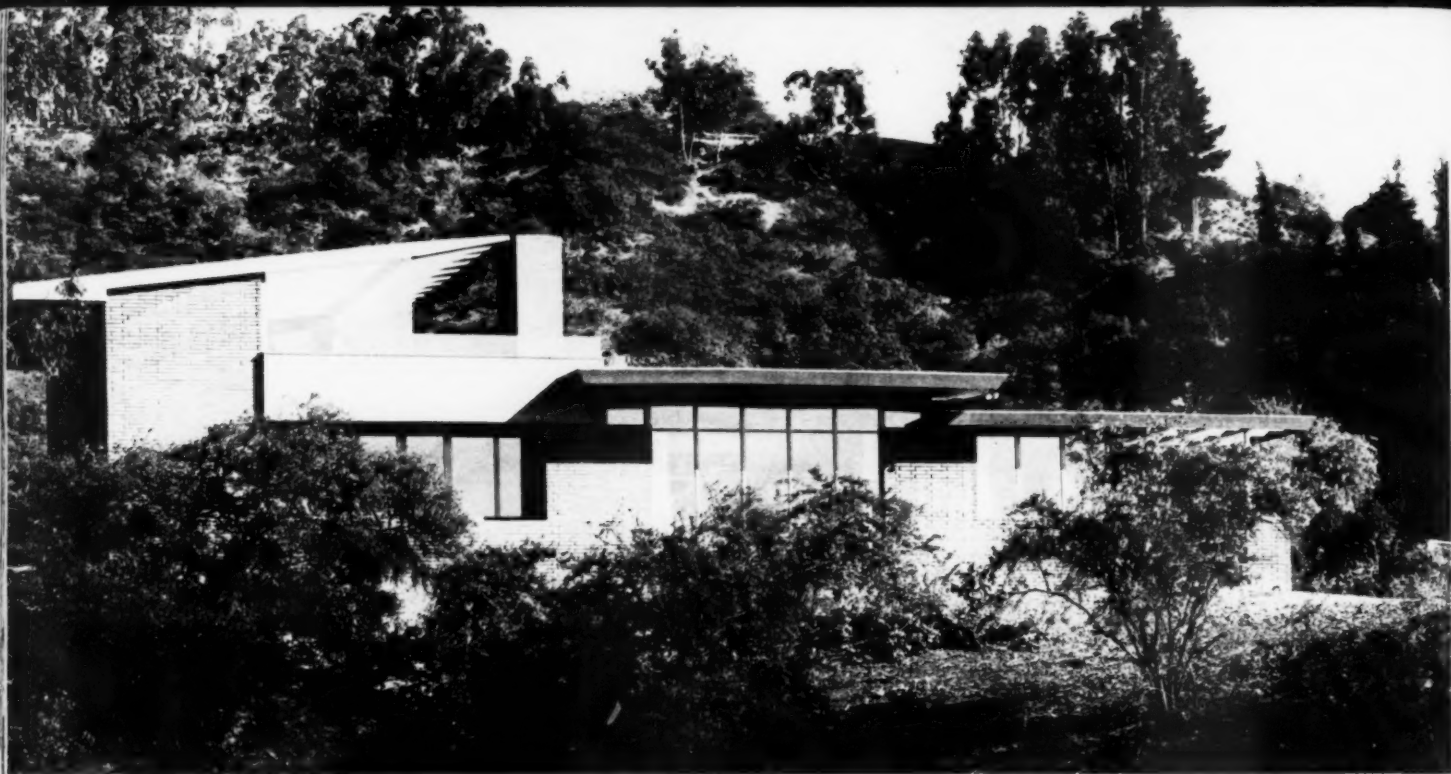
"The fastest moving job in town," has been Al LaPierre's boast for this operation. He claims to produce a finished house in 31 days—faster in fact than they can get the "paper work" done in the local Federal offices. Furthermore, "This is the house the GI's were dreaming about in the foxholes," he declares.



THIS access stair, built in garage, to storage space in attic is a popular feature.



FOUR block layers, three hod carriers lay up one house a day. Block are Graystone "Darex" waterproofed. Outside walls painted; inside furred, rocklathed and plastered.



EXTERIOR view of functional home with beautiful California mountains for background.

## Unusual Effects Obtained in Modern House

**T**HE extremely modern teams up with the highly functional in the intriguing design of an unusual home set on a rugged mountain slope overlooking Los Angeles, the ocean and the channel islands. Designated Case House No. 16, it is one of the group sponsored by Arts & Architecture in 1945 in their program to present free to the public the best work of American architects. It was designed by Rodney A. Walker.

Planned into its location, the house is an integral part of the landscape picture—the background of wooded

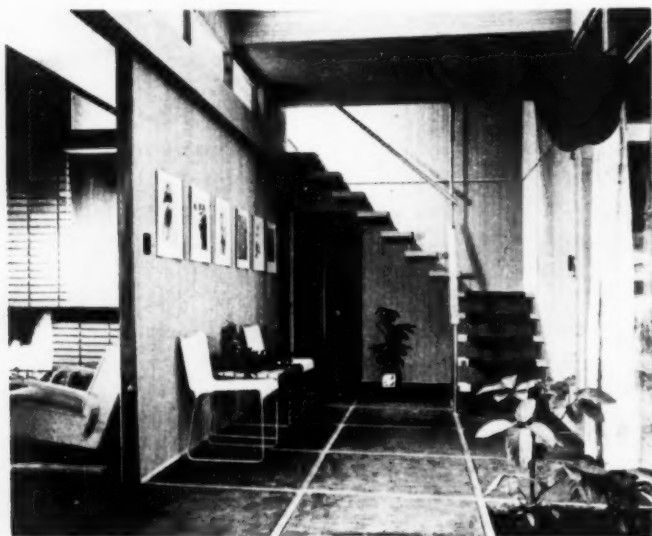
hillside, the canyons falling away on either side and the magnificent panorama of distance. A native California holly tree was preserved as the central decor in a brown-stained concrete paved patio leading into a similarly paved loggia around which the rest of the house is built.

Combed plywood is the predominant exterior finish, although the south side of the house is brick and glass. The interior, too, combines plywood and glass tastefully.

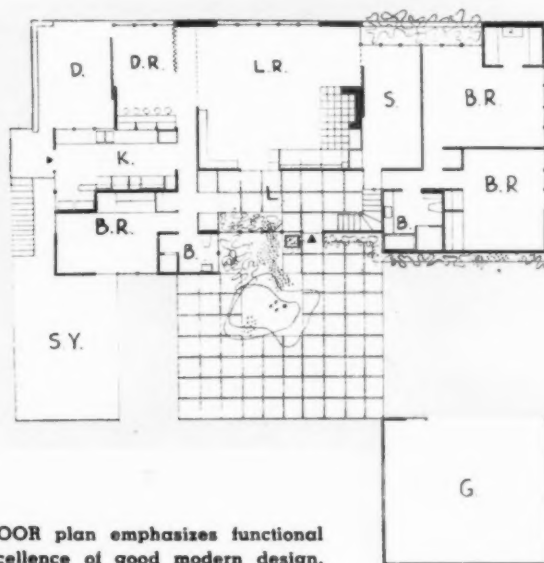
The living area, dining space and study are embodied in one open area,

but can be separated by a sliding panel and accordion screen. Entrance to all three units, to the three bedrooms and to a cantilever stairway to the sundeck is provided from the loggia. Loggia gives gradual transition from outdoors to indoors.

The living room, dining space and study all are paneled in mahogany plywood with floor covering of warm brown linen carpeting. The living area has 11 foot ceilings with exposed 3 x 12-inch joists. Full length windows front on the principal view. Book and record shelves and closed magazine



THE loggia has access to all rooms; stair ascends to sundeck.



FLOOR plan emphasizes functional excellence of good modern design.



TOP LEFT, loggia entrance from patio; lower left, roofed portion of sun deck; right, well-lighted living and dining areas.

compartments form a library corner. A fireplace is built of 12-inch tapestry-faced, ruffle brick laid one above another to keep lines vertical. A 21-foot light shelf carries fluorescent tubes at an 8-foot height, lining up with ceilings of the dining space and study. Glass above the shelf between the loggia and living room gives light at the back to eliminate glare from the 15-foot bank of front windows.

The 9 x 18-foot study has a large built-in lounge and closet, is close to a bath and can serve as a guest room. Dining space is 9 x 15 feet, separated from kitchen by a counter which doubles as a breakfast bar.

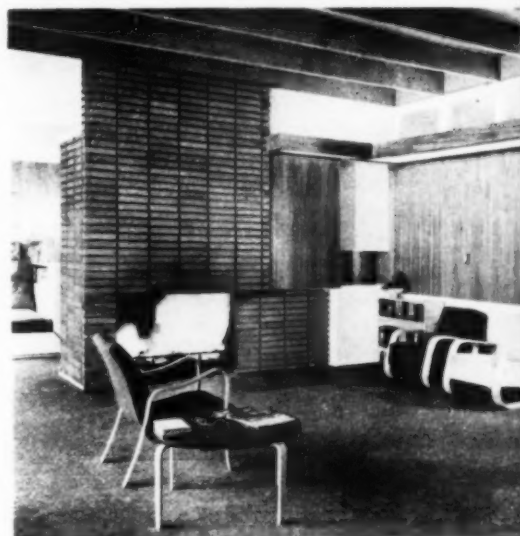
Prima vera wood counter tops and cabinet doors, chartreuse walls and

a pale yellow ceiling give warmth to the kitchen. An automatic washer eliminates need for laundry and washing facilities.

The master bedroom is finished in satin plywood, has clever lighting. Child's bedroom has high windows to cut out draft. Third bedroom serves as guest room or servant's quarters. Both baths have linen-textured plastic walls and asphalt tile floors. Cabinets are black plastic.

The house is heated from radiant coils installed in the ceilings.

A 1,000 square foot sun deck is partially roofed to protect furniture. It is furnished for outdoor living with fireplace, sink, cabinets, storage space and barbecue equipment.



THE fireplace corner of the living area.



COUNTER between dining area and kitchen also serves as breakfast bar.



BURN-PROOF clear plastic protects kitchen work surfaces.





ARCHITECT'S rendering of large rental apartment building (above) indicates the design is in the modern manner.

## Helping to Break Housing Bottleneck

**Thirteen rental units are contained within the new Riverside Apartment building now under construction**

**G**ROUND has recently been broken for the new \$100,000 apartment building located in the south end of Evansville, Ind., overlooking the Ohio River.

Designed by Kingsbury and Ward, architects, Indianapolis, Ind., it represents the very latest in apartment house planning and design. The building contains a total of thirteen apartments, nine of which contain

five rooms and four which have three and a half rooms. Two stair halls, with glass area on the exterior face extending from entrance level to second floor ceiling, provide ample light and air into these areas.

Each apartment has complete cross ventilation. Living and dining room are arranged as one large room with bedrooms and bath completely separated from the activities area.

The closet space while not excessive appears to be ample to care for the needs of a small family. The entire exterior is of face brick with brick quoins used effectively between the adjoining groups of windows to emphasize the horizontality of the design.

**THE L-shaped plan permits an abundance of light and air to infiltrate into all the rooms.**





MODEL home of the 1946 Indianapolis Home Show is shown above having been reproduced in its entirety in the northeast section of city.

THE delightful home shown on this page which has recently been completed in the 5700 block on North Oxford Street, Indianapolis, Ind., has been modeled in its entirety from the prototype shown at the Indianapolis Home Show in 1946.

The architectural firm of Ayres, Ward and Kingsbury, and Bridges and Graves Co., contractors and builders, were retained to prepare for permanent occupancy this house that had invoked such great interest during the period of the Home Show. It can be appropriately called the "House of Ideas" as it has proven to be a good demonstration of the newest and best ideas that can be incorporated in a small modern home.

This house is of contemporary design in that it is functionally planned. Its exterior walls are of masonry construction with painted brick surface. Its low pitched roof is covered with asbestos shingles. The cupola on the roof serves as an outlet for an electric ventilating fan. Splayed walls front and rear contain large Thermopane glass units. The wood stanchions or vertical fins of the windows in the splayed walls also act as supports for the roof.

Built without a basement, a large utility room is provided adjoining kitchen for laundering and heating.

EXAMINATION of plan at right will show that three walls of the house are composed almost entirely of glass of varying heights, yet ample provision for privacy is obtained in bedrooms and living portion.

## House of Ideas





## A 1947 Floral Shop In Victorian Style

**Efficiency and convenience combined with Victorian style to construct outstandingly attractive Kansas City store. Recessed lighted wall shelves and no-shadow fluorescent lighting add much toward achieving distinctive interior**



TOP: Night view of front. ABOVE: General view of shop interior looking toward rear.



LIGHTED built-in shelves add distinction.

**A** RECENT addition to the carefully planned Country Club Plaza shopping district in the J. C. Nichols Company Kansas City development is the Liesveld Floral Shop, which attracted more than 2,000 visitors at a week-end formal opening.

Total floor area of the shop is 20x120 feet, with the front fifty feet devoted to the salesroom and the balance to offices and workroom. A full basement has storage racks for pottery and other supplies, as well as extra work table for periodical holiday rushes. Both floors are equipped with sinks. A freight elevator for trucks and automobiles permits loading and unloading inside. The entire space is air conditioned.

The shop is decorated in Victorian style, with slate-gray walls and pale French-gray fixtures. White plaster framed mirrors and accents add to the motif. Open shelving and recessed lighted wall shelves are used. A white grille work forms a partial background for the display windows.

The refrigerator is 20 feet long and four feet deep and lined with mirrors. Each of the six double doors has triple-pane plate glass. Adjustable shelving within the box is also made of plate glass. The refrigerator is lighted with fluorescent tubes, also used for the open display shelves adjoining the box at either end. No-shadow fluorescent lighting accentuates the outstanding





INTERIOR design achieves maximum effectiveness with no-shadow fluorescent lighting.



WHITE plaster framed mirrors and accents were used to carry out the Victorian style.

features of the shop's fine interior.

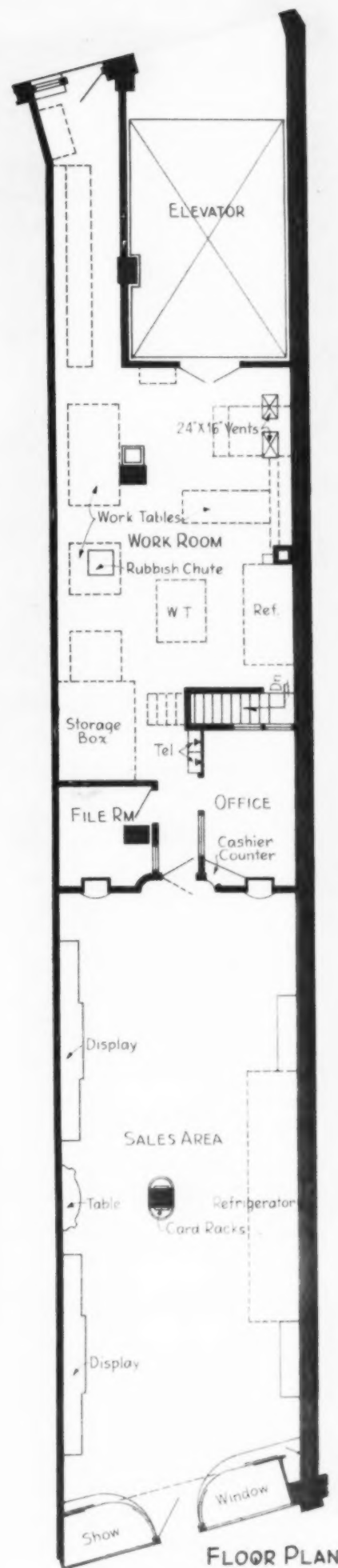
Strict attention to efficiency and convenience marks the workroom layout. Each designer has his linoleum topped work table, with ribbons, vases and other supplies on the wall above it, a shelf below and drawers at the sides. A chute to the

basement provides for convenient trash disposal. Large doors at the rear open to the auto elevator.

This shop has received national recognition because its design provides good solutions to the problems of floor arrangement, lighting, display and decoration in a floral shop.



MIRROR-LINED refrigerator is 20 feet long, 4 feet deep. Shop floor plan is at left.



# How the New Labor Bill Will Work

**Fifty-three questions and answers on the Taft-Hartley law prepared as an operating guide by the labor relations staff of the Collective Bargaining Bulletin\***

**H**OW the new labor law will operate in practice has become the quiz of quizzes in the volatile field of labor relations. The answer is not contained in any simple, easy-to-digest capsule.

But neither are the new regulations so complicated or obscure as to discourage the employer from digging into the new provisions and coming up with real know-how on what he should do when negotiating with labor under the revised rules.

The following, in question and answer form, will provide you with the ABC of the Taft-Hartley law, free from the overdose of legalisms which make the Act itself look so formidable a document.

**Q.: I have a closed shop agreement in my current contract. Is it illegal from now on?**

**A.:** No. Your present contract is valid until it expires.

**Q.: What about a union shop which requires employees to join up after a 30-day trial period?**

**A.:** The new law says that you cannot sign a union security provision into your contract unless a majority of the eligible employees in the bargaining unit have voted to authorize the union to negotiate such a provision.

**Q.: What do you mean "a majority of the employees in the unit?"**

**A.:** Just that. It must be a majority of the employees eligible to vote in the unit, not a majority of those who turn up at the ballot box.

**EXAMPLE:** You have 200 workers in the bargaining unit and only 50 turn up to vote. Even if all of these vote "yes" on union security, the union loses.

**Q.: Does that mean that if the union loses, I can operate an open shop?**

**A.:** Yes, that's right.

**Q.: Will I, the employer, have to pay my workers for the voting time?**

**A.:** No, but you may, if you care to do so.

**Q.: Will the vote on the union shop be taken before or after actual negotiations begin?**

**A.:** Before, because the union will not be able to demand such a clause unless it has ballot box proof that

the employees want union security.

**Q.: Does that mean that once the employees have voted for union security, I have to accept it?**

**A.:** Not at all. All it means is that you can negotiate the issue.

**Q.: Who will be eligible to vote on the union shop issue?**

**A.:** A good question! All the employees in the bargaining unit will be permitted to cast their ballot—even those who in a certification election previously, voted "no union."

**Q.: Must a vote on union security be taken every time my contract comes up for renewal?**

**A.:** No. The union security clause can continue in renewal unless at least 30% of the employees petition the NLRB that they want "out."

**Q.: Once I have signed a union shop agreement, does that mean that I have to fire an employee if he loses his "good standing" with the union?**

**A.:** No it does not, and here the law is very specific. It provides that you must fire a worker on union demand ONLY if he fails to pay his dues or initiation fee, and for no other reason.

**Q.: What if a worker gets involved in union politics and is thrown out of the union. Do I have to fire him then?**

**A.:** No. It would be an unfair labor practice on your part to do so. He can only be discharged for non-payment of dues or initiation fee. Whatever happens to him inside the union has no bearing on his employment with you.

**Q.: Is there any way in which I can make sure that non-payment of dues is the real reason for the union's demand that he be discharged?**

**A.:** Yes. If you have a check-off, then you can easily tell if the worker is delinquent.

In view of this new turn of events, many employers will prefer to have a check-off so that they could always be sure from their own records that the union's demand for discharge is legitimate. Remember—if you wrongly fire a worker on union "say-

so," he may file an unfair labor practice charge against you, and the NLRB may hold you liable for reinstatement, with back pay.

**Q.: Is the check-off still permissible?**

**A.:** Yes it is, but only where the employee has given you in writing, a voluntary authorization to deduct regular union dues from his pay envelope.

**Q.: Can my employees revoke this authorization "at heart's content?"**

**A.:** No. The authorization is good for at least 1 year or when the contract between you and union expires—whichever is first.

**Q.: Can the check-off include anything else in addition to regular union dues?**

**A.:** Yes, it can include the initiation fee. No special assessments, contributions to union funds or other levies are permitted to be checked off by the company for the union.

**Q.: Can I balk at a check-off or initiation fee if I think it is too high?**

**A.:** If you feel that the dues are too high or the initiation fee is too large, you can file an unfair labor practice charge against the union. The NLRB will then investigate and make the appropriate decision. The employee too, can ask the NLRB to size up the union's dues and initiation fees.

**Q.: Once I have agreed to a check-off, can the union boost the "ante" and demand that I turn over the larger amount?**

**A.:** Don't do it. Check-off only the amounts stipulated when the contract is signed. All dues increases are the union's own business and let it handle that end of it the best it can.

**Q.: I have always negotiated through an employer's association. Under the new law do I have to continue that arrangement? Can the union force me to accept the settlement it reaches with the association?**

**A.:** No. An employer can, if he wishes, disassociate himself from the employer's group and negotiate on his own. The employer may, however, continue to negotiate on an

\*An affiliate of the 30-year-old National Foremen's Institute, which provides business men with techniques on collective bargaining and labor relations.

(Continued to page 152)

# "Balloon" House

## Now Being Mass Produced

A UNIQUE house, shaped like a sea shell, is located in staid and conservative Pasadena, Calif. It is about the last place in the world in which one would expect to find a "balloon" house, as this has been called since it was erected.

The house was designed by Architect Wallace Neff, who is now negotiating with the Mexican government for a 2,000-house project in a new industrial district, and with Brazil on a contract for the erection of 1,000 houses per year. From the standpoint of construction quality, construction cost and livability, this house has much to recommend it, particularly in areas where non-conventional houses will be accepted.

The house is built by inflating a rubber balloon to the desired size and shape and then spraying it with concrete with pneumatic guns. Reinforcing wire is of course used. The shell can be erected in two days in this way. The cost is about the same as conventional construction on one house, but important economies can be effected on large projects.

Load tests were made on the house by Prof. F. J. Converse of Cal-Tech by placing 11½ tons of sand bags on the roof. There was practically no deflection and no cracking.

The garage does not show in the photograph but is conventional in appearance and is attached to the house with a breeze-way. An interesting



BRIGHT green paint on front door and trim contrasts with white exterior.

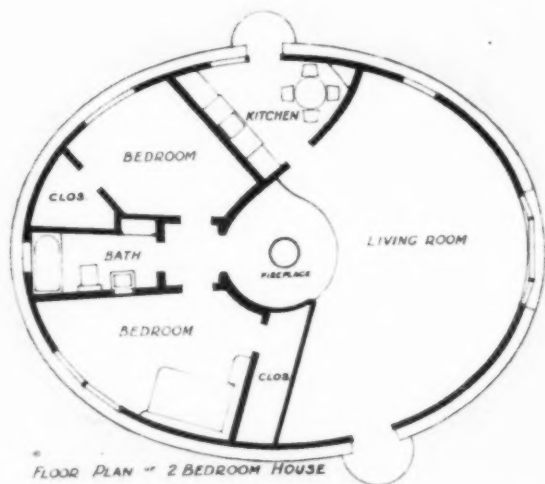
dormer-type window opens at side. Along both sides of the front door are ledges for large flower pots.

The floor plan is just as non-conventional as the exterior. Right in the middle of the house is a most unusual fireplace, consisting of a large black urn with a hood hanging down from the ceiling to absorb the smoke and gases. It gives a very bizarre and dramatic atmosphere to the living room. This furnishes heat for the entire house inasmuch as the partitions between rooms do not reach the rounded ceiling.

The house is designated as a "sea shell" house by the architect because he originally conceived the idea by studying sea shells which combine great strength with graceful, stable appearance.



URN under low hood serves as fireplace.



FLOOR plan is as unconventional as the exterior design.



A VIEW of the dining area showing dormer window arrangement.





ARGO VILLAGE already is well under way. Inset, John Aragona, president of Argo Homes, Inc.

## 1500 Houses to Be Built This

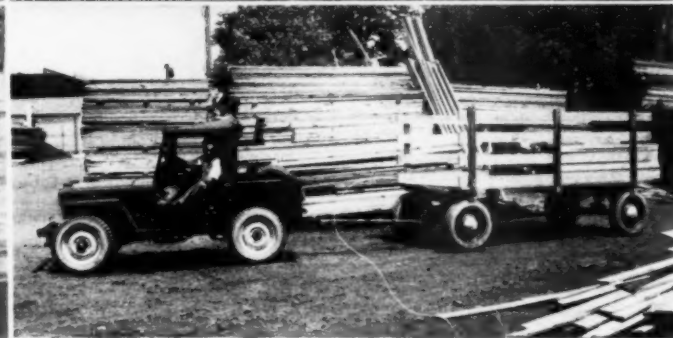
**Standardized basic plans and materials permit emphasis on construction speed at Argo Village, self-contained community being built on 210 acres by Argo Homes, Inc.**

**F**IFTEEN hundred new homes in a single building project in one year is an ambitious undertaking in a period of both labor and material scarcities. Argo Homes, Inc. is aiming at this goal in Elmont, Long Island, where construction has begun on that number of five and six room houses which are to be completed this year on a 210 acre tract.

Argo Village will have a large shopping center with

specialty shops, super-markets, ample parking facilities, and a Y.M.C.A. building on a tract which the corporation has donated for that purpose.

Two basic plans are being used for the houses—one for a two-bedroom unit and the other for a three-bedroom house to be priced at \$9,600 and \$10,600 respectively. Several exterior finishes will be used, but the emphasis is on production, not individuality. Standardization of



PRECUT materials, top left, cover three acres around millwork shop, top right. Lower left, shop interior shows bundled trim. Versatile jeep hauls trailer loads of precut materials from shop to job.



TWO model homes are complete. At left is the three-bedroom house; at right, the two-bedroom unit.

## Year in \$13,000,000 Long Island Project

the plans and materials permits almost an assembly line production. Although in no sense prefabricated, the houses are built of lumber which is mostly precut at the corporation's millwork shop. Interior trim also is precut.

The houses have a poured concrete foundation with a full basement and 8 x 8" I beam and 4" lolly columns as supports. Face brick, backed with cinder block, is used to the height of the first floor. The second floor is of wood with asbestos cement shingles, wood siding or stucco finish. Roofing is of asphalt shingles. Interior finish of walls and ceiling are gypsum lath and plaster.

A one-car garage is attached to the house and in the three-bedroom unit the extra bedroom is over the garage and has a large walk-in closet. The kitchen has plenty of cabinet space, a combination sink and tub and is floored

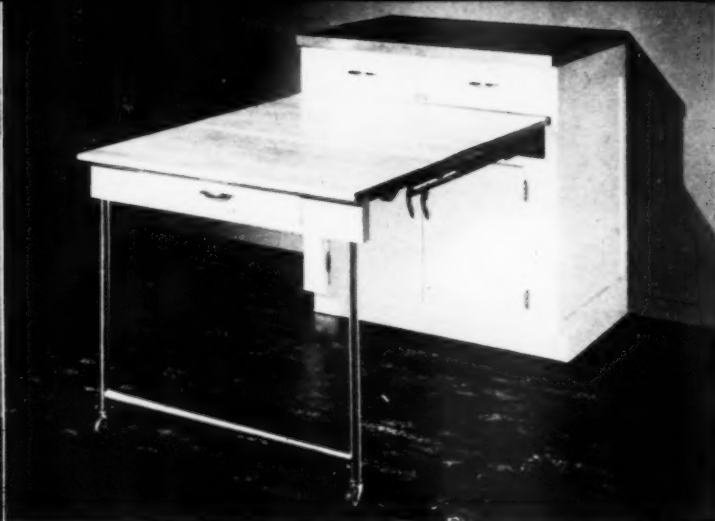
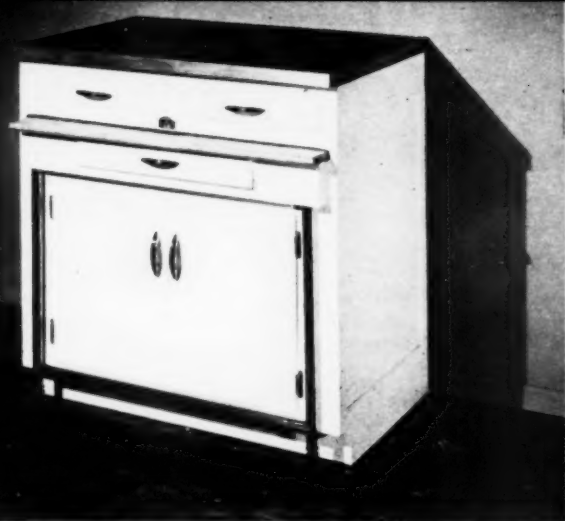
with either tile or linoleum. Dining and living rooms have oak floors and ample electrical outlets. All windows have venetian blinds. A large guest closet opens off the entrance foyer. Bathroom walls are wainscotted, plaster above and metal tile below with ceramic tile flooring. Bathtub with shower is glass-enclosed. The bedrooms, of ample size, have good closet space and oak floors.

Forced warm heating is provided from an oil-fired boiler with humidifier. The attic is insulated with two inches of cotton insulation.

Rapid construction is facilitated by the complete lumber yard, of which the millwork shop is a part. Stored materials cover three acres. Two jeeps, each working three trailers in relays, and five trucks haul materials from the lumber yard to the job.



FLOOR PLANS for three-bedroom house. While rooms are not large, they are ample for modest living. The two-bedroom house floor plan is identical with this except that bedroom over the garage is eliminated.



## Cabinet With Built-in Extension Table

**T**he kitchen cabinet unit shown above is 36 inches wide, 23 inches deep at the base and 36 inches high with all the utility and storage space of a regular cabinet, yet it contains

a "Glydeaway" extension table. Fully extended the table is 34x42 inches, but as little or as much of it as desired may be used up to the full length of 42 inches. The cabinet

unit is built of selected hardwoods with the stationary work top covered with linoleum 25x36 inches. The extension table is made of selected maple in natural finish.

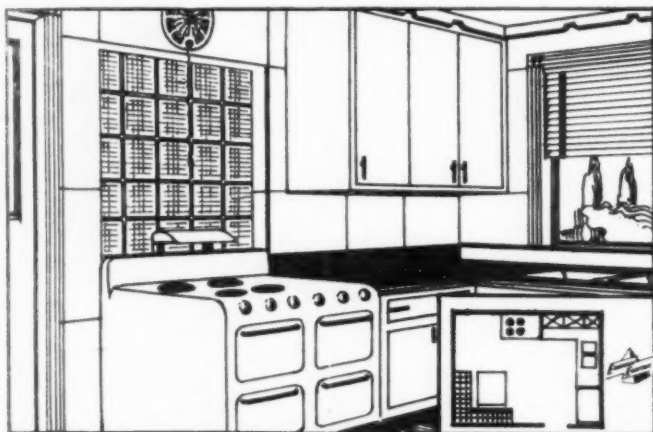
## Some Practical Hints on Kitchen Ventilating

**L**EADING manufacturers of kitchen ventilating equipment have been careful to point out the advantages of proper planning of modern kitchens for adequate ventilation. A majority of modern kitchens pictured in consumer publications and in literature have the range installed on an inside wall with the kitchen ventilator

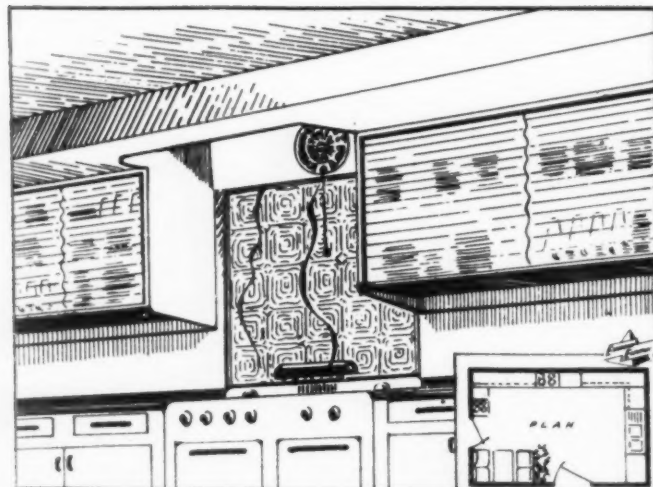
exhausting through a vent in the ceiling or no provision for the fan at all. Cabinets installed over the range very often become too hot to be practical for the storage of many materials and are also difficult to keep clean. Designers give too much attention to the plan's continuity and beauty instead of carefully considering the functional requirements of equipment.

It is most desirable to locate the range on an outside wall with a quiet and efficient kitchen ventilating fan as near as possible directly over the range. This is easily accomplished when the kitchen is located in a corner of the house and it also permits installation of the sink on an outside wall under a window. The three kitchen plans shown here, prepared by The Emerson Electric Manufacturing Company, are suggested solutions to the problem of compact kitchens with the asset of good ventilation.

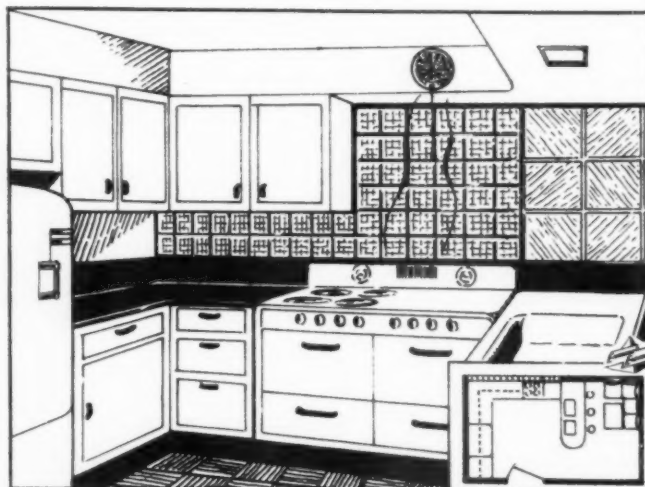
With the trend toward lower ceilings in homes, as a result of efforts to construct more compact homes, builders are finding it more difficult to provide space and logical arrangement for the large variety of modern equipment and still retain desirable features such as an abundance of natural light and adequate ventilation.



PLAN A for 7½-foot ceiling. Floor layout shown at lower right.



PLAN B for an 8-foot ceiling again has range on outside wall.



PLAN C. In all three plans ventilator is directly above range.



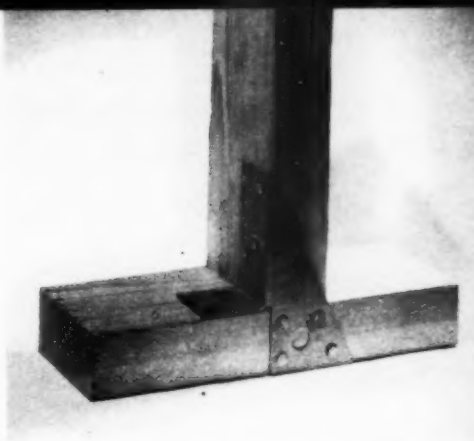
## Framing Anchors Prove Popular

A NEW type of timber connector, known as "framing anchors," for making economical, strong secondary connections in wood house framing is proving popular with home builders throughout the country.

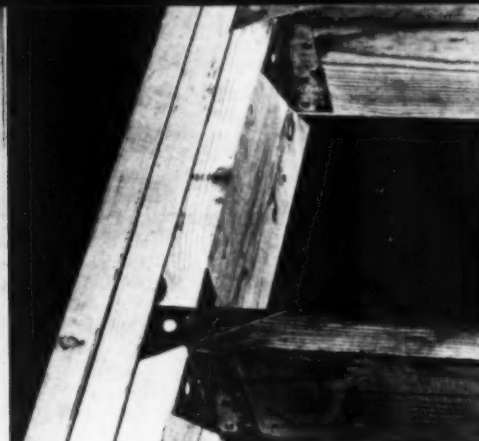
The framing anchors are used most widely in strengthening door and window framing, the spots where plaster cracks frequently start. The anchors also replace the uncertain connections of toe-nailing.

Known as Trip-L-Grip framing anchors, the devices have been laboratory tested at Georgia Tech. The anchors have been found to have many advantages such as elimination of bridging, notching, excellent wind anchorage and are 35 per cent stronger as a joist support than when joists are supported on ledgers.

They are made of 18-gauge zinc-coated, corrosion resistant sheet steel and are joined to the wood with non-splitting, full-bodied nails that develop maximum shear without splitting the lumber.



TYPE B. Teco Trip-L-Grip—stud to sill.

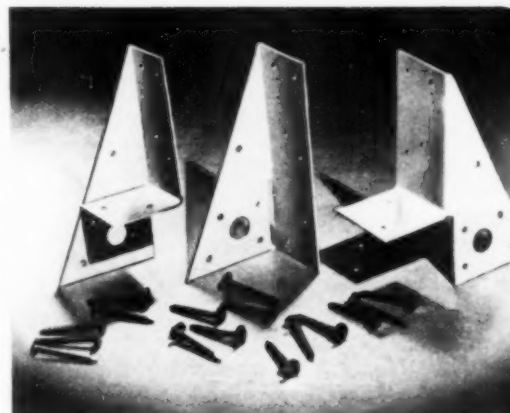


C and B—joist to beam or header.

W. H. Armstrong, Atlanta engineer, who has built 20 jobs with anchors, states they serve a structural need not previously filled, and he also believes their use with wood framing gives a much stronger and more economical structure.

The new device is also used to good advantage with the widely recognized Teco trussed rafter, with which builders find it possible to save a considerable footage of lumber in building one-story, two bedroom houses.

Timber Engineering Company reports local stocks of anchors are available throughout the country.



THREE types of anchors—A. C. B.

## Calcium Chloride for Better Concrete Blocks

UNIT strength and cost are the most important factors in the manufacture of concrete and cinder blocks. Calcium chloride in the mix will help achieve a superior product in the following ways:

1. Stronger blocks are produced quicker by getting more complete hydration of the cement.
2. The time required to reach a given unit strength is cut in half.
3. It prevents rapid loss of water, the fundamental cause of excessive shrinkage resulting in cracks.
4. It increases the strength and

adds rigidity to concrete at all ages.

Calcium chloride is effective no matter what aggregate is used—cinders, sand and gravel, or commercial light weight aggregates.

In the very dry mixes such as are normally used in the production of concrete and cinder blocks, calcium chloride should be used only in solution, in the proportion of one pound of flake calcium chloride per quart of solution. Two quarts of the solution (containing two pounds of calcium chloride) should be used for each sack of cement in the mix, and

the mixing water should be reduced by the amount of solution added.

Care should be taken not to use more than the recommended quantity of calcium chloride, that is two per cent of the weight of the cement or two pounds per sack of cement. This is sufficient to provide maximum hydration. In very hot weather, however, a lesser amount (one to one and one-half pounds per bag of cement) will be adequate. In freezing temperatures normal protective measures are still required, although for a shorter period.

## New Powder-Powered Tool

A NEW industrial powder-powered tool, "Drive-It," which instantly drives anchor studs as much as three inches into average concrete, has been introduced by the Powder Power Tool Corp., Portland, Ore.

The Model 38 Drive-It, which weighs only seven pounds, delivers a twenty-ton blow. This power is derived from a small charge of special powder encased in a small cartridge approximately the size of a 38-caliber pistol shell. The tool will not function unless forced vigorously against the work, thus prohibiting its use as a gun. It cannot

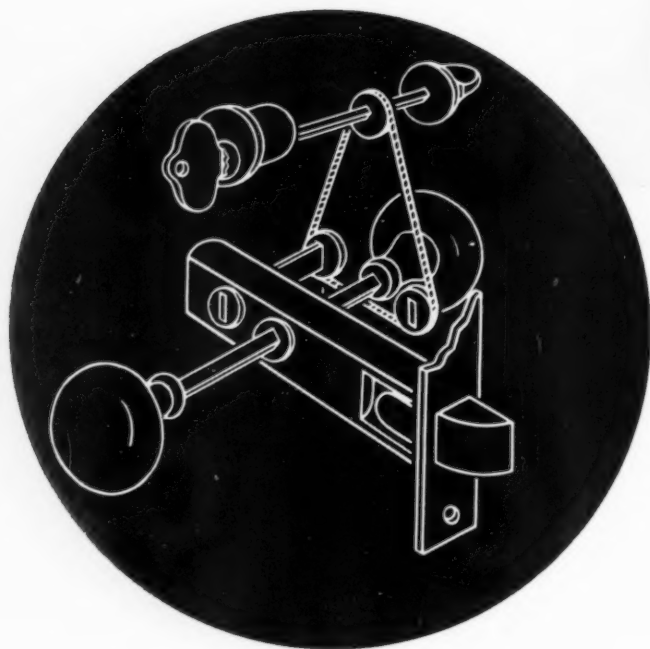
be discharged by dropping. A special recoil mechanism absorbs all shock.

Anchor studs driven into ordinary concrete by the tool will withstand a direct pull from two to four thousand pounds, depending on the quality of the concrete, and will withstand a pull in excess of 5,000 pounds when driven into steel plate.

The tool has already found wide usage among builders, particularly for fastening wood "sleepers" to concrete floors; inserting threaded studs into ceilings or steel structural members, and many other uses.



## New Type Lock for Residential Use



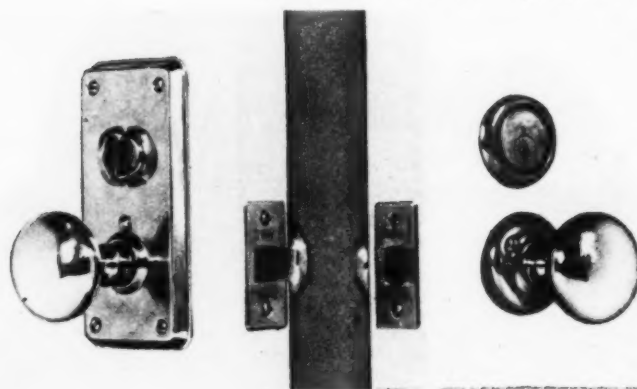
**D**URING this period of door shortages, high prices and freight car shortages, some of the advantages possible by use of thinner, flush plywood or laminated doors in place of  $1\frac{3}{8}$ -inch and  $1\frac{3}{4}$ -inch stock panel doors have been realized. Savings in lumber and in freight are two compelling economy factors.

The lack of adequate locking devices has restricted the use of laminated doors for all interior installations including office and apartment entrances. Except where fire laws require metal or tin-clad doors and where there is exposure to the weather, laminated doors have proven satisfactory.

Heretofore the only cylinder locks available for doors under  $1\frac{3}{8}$ -inch in stile thickness have been of the rim type—applied to the door surface. They frequently require mutilation of the door frame in applying the lock strikes or keepers.

There has never been a mortise cylinder lock with a full five-pin tumbler cylinder and with bolts of  $\frac{1}{2}$ -inch or more throw that could be installed in a door less than  $1\frac{3}{8}$ -inch thick. Most locks of this type require a  $1\frac{3}{4}$ -inch door. This lock problem has blocked the widespread use of thin plywood doors in spite of the fact that such doors have been available for many years. Recent developments in resin-bonded, laminated wood panels have made the problem more pressing.

By adapting a light, high tensile strength, stainless steel cable developed for airplane instrument control to lock construction, the Duncan Shaw Corporation of New York City have developed mortise locks which have cases only  $\frac{3}{8}$ -inch thick and are easily installed in doors as thin as  $\frac{3}{4}$ -inch. The thin case is made possible by their "Air-cable" construction, a new concept in lock design. Friction found in older locks with winged hubs is eliminated. A quarter turn of the pulley-like hub to which the cable is attached fully retracts the latch bolt with no sliding friction between cable and hub. The latch bolt has a full  $\frac{1}{2}$ -inch extension.

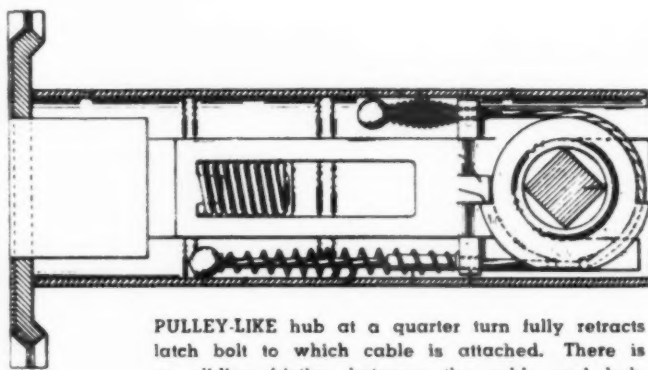


BASIC principles of new mortise lock for thin doors shown at left. Lock actuates bolt by means of cable in escutcheon plate.

**Designed to satisfy need for mortise cylinder lock with full five-pin tumbler cylinder, and with bolt of  $\frac{1}{2}$ -inch or more throw that may be installed in doors less than  $1\frac{3}{8}$ -inch thickness**

The cable—21 strands of stainless steel wire—cannot be overstressed. When the latch bolt is fully withdrawn by turning the knob, but before the main spring is entirely compressed, a shoulder on the hub is stopped by a lug on the latch bolt. The cable principle is utilized both in tubular locks for  $1\frac{3}{8}$ -inch and  $1\frac{3}{4}$ -inch stock residence doors, and in mortise locks for very thin doors of any kind.

Perhaps its most interesting application is in connection with cylinder exterior door locks of both tubular and mortise types. The cylinder may be installed above the lock, thus utilizing the full door thickness to house it. The low cylinder collar virtually makes it impossible to apply a wrench and force entry. The locking motion is transferred from the cylinder and thumb piece to the lock



PULLEY-LIKE hub at a quarter turn fully retracts latch bolt to which cable is attached. There is no sliding friction between the cable and hub.

proper by the cable sealed into the escutcheon plate and firmly swaged to upper and lower pulleys.

Using another variation of the cable escutcheon construction, they have developed a conventional two bolt mortise cylinder lock which may be applied to a  $\frac{3}{4}$ -inch plywood door. This application permits a reduction in door thickness never before possible. For apartment entrance doors, the stainless steel deadbolt has a  $\frac{3}{4}$ -inch jimmy-proof extension. The use of these new locks presages a wider use of the new thin modern doors.



## Building Contractor's Liability for Negligence of Subcontractor

**G**ENERALLY speaking, when a building contractor sublets work to an independent contractor, the latter alone will be liable for damages caused by his negligent acts. But this rule has many exceptions, and one of the most important has to do with supervision by the principal contractor.

For, if the latter exercises control over the performance of his subcontractor, he may not escape liability under the independent contractor rule. This is a nice point for contractors to have in mind when subletting, and as a pat illustration of the application of the rule the following will serve.

Here the defendant contracted to make alterations, repairs, and some new construction work upon a business building in a mid-western city. In turn the defendant sublet certain parts of the work to an independent contractor. This subcontract involved brick and tile work, masonry, concrete, and shoring, among other things.

In order to perform this work, it was necessary for the subcontractor to erect scaffolding on the roofs of adjoining business buildings. And, while the contract between the defendant and his subcontractor did not provide for supervision, the defendant's superintendent, who had charge of the whole job, did direct the work of the subcontractor on the roofs of the adjoining buildings.

Sometime thereafter, following a heavy rain storm, the roofs of the buildings, upon which the subcontractor had erected scaffolding, began to leak. This resulted in damage to the merchandise of the plaintiffs, two business firms, that were operating in the buildings.

The plaintiffs thereupon filed the instant suits for damages against the defendant, on the grounds that their losses were caused by the negligence of the subcontractor in working upon the roofs. The defendant, among other things, denied liability for acts of the subcontractor, since the latter was an independent contractor.

Upon the trial, both plaintiffs were awarded judgments that totalled \$2,865 against the defendant. The latter appealed, and the higher court in affirming the judgments had this to say:

[Defendant], as principal contractor, was liable under the evidence for the damage occasioned by the negligence, if any, of the subcontractor. [Defendant's] superintendent

[was] in charge of the whole job and he exercised supervision over acts of the subcontractor upon the roofs of the store buildings.

"Defendant invokes the rules applied in case of an independent contractor, but that rule has many exceptions and this case, under the evidence, comes within the one wherein the principal, by retention or exercise, or even quasi supervision or control, remains responsible.

"Use of the store roofs by the subcontractor was called to the attention of the superintendent of the principal contractor, and there was assumption of supervision by him. \* \* \* Supervision, in fact exercised, is equivalent to supervision expressly retained in fixing liability of the principal. The contract between the principal and subcontractor was silent on the subject of supervision. \* \* \* The judgments are affirmed with costs to plaintiffs." (287 N.W. 327)

The foregoing case was carefully considered by the court, and the reasoning and holding is in accord with the weight of authority. This authority taking the position that a principal contractor may not escape liability for negligent acts of his subcontractor, under the independent contractor rule, when he exercises supervision over the latter's performance.

To justify this exemption, the subcontractor must have been truly independent, in the manner and method of performing, and responsible only to the principal contractor for results. Even then the character of the work, and other factors, may have to be considered in fixing the status of the parties.

All in all the subject of a building contractor's liability for the negligent acts of his subcontractor is one of many angles. It cannot be covered by the statement of any hard and fast rule—so much depends upon the facts and circumstances of each case. However, this much may be said.

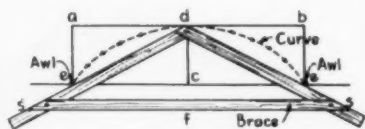
There is no gainsaying the importance of the point to building contractors in general when subcontracts on a particular job are being entered into. A slip-up here may quite easily spell a substantial loss where a subcontractor "falls down," and his principal is held liable. And as an example of judicial reasoning on the "supervision" phase of subcontracts, the case reviewed is of force and value.





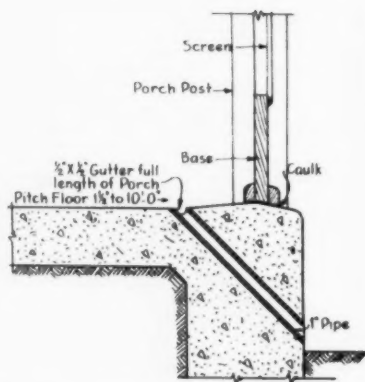
## How-To-Do-It Pointers

### How to Make a Curve With a Set Triangle



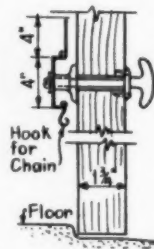
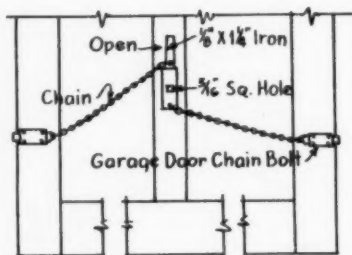
IN the accompanying illustration let (a) and (b) represent the length, and (c) and (d) the height of the curve. Drive two awls at (e) and (e); then take two strips marked (s) and (s) and nail them together at the point (d) and spread out the sides to the awls at (e) and (e). Then tack on the brace (b). Hold a pencil at the point (d), then move the pencil toward the point (e), both ways. Be sure and keep the strips (s) and (s) hard against the awls at (e) and (e) and the pencil will make out the exact curve.—HERBERT E. FEY, New Braunfels, Texas.

### How to Keep Woodwork on Concrete Porches from Rotting



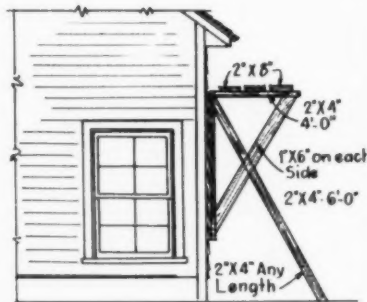
THIS detail to be employed where solid wood rails are used around the porch. Submitted by GEORGE T. MANN, Fort Meyers, Fla.

### How to Make an Overhead Door Lock



MANY overhead door sets today have a lock that has to be worked from the outside. Here is a lock that anyone can assemble and can be opened from the inside. Buy a rear deck lock for an automobile, two chain bolts, a rosette and an old door knob. Saw off door knob and use shank only as shown. Bend handle cold in vise and drill 5/16 inch hole in center. File out square and assemble lock. Submitted by J. G. CALDWELL, San Mateo, Calif.

### How to Make an Adjustable Scissor Jack



BY nailing a 2 x 4-inch x 6-foot and 2 x 4-inch x 4-foot members together making a right angle triangle and using a 1 x 6-inch brace on each side, together with a 2 x 4-inch member of any length desired to fit your requirement, an effective and substantial scissor jack can be built in a hurry. This makes a scaffold easy to operate which does not require nailing to sheathing.—W. V. BURNS, Sr., Star City, Arkansas.

# AMERICAN

## Insulation Types and Methods of Application

By R. J. Alexander

THE AMOUNT and type of insulation required in a building or a residence depends on usage and conditions of climate. It may be used as a protection against heat or cold or both.

Insulating material is available in several different forms; blanket or batts, loose material in bags for pouring in or blowing in, and in sheets or boards used as exterior sheathing or interior plaster base.

Blanket insulation materials come in various thicknesses and are usually specified as one inch, medium and full thick. The full thick will almost entirely fill the spaces of 2 x 4 inch studs.

Blanket insulation may have a vapor seal paper on one side and a breather paper on the other side. Manufacturers directions for installation should be carefully followed. Standard widths are for studding spaced either 16 inches or 24 inches on center.

Batt insulation also comes in various thicknesses and for standard stud and joist spacing. Made of rock or glass wool it is available in pieces of various sizes to fit between joists or studs. It may or may not have paper covering.

Board insulation is available in various thicknesses for use as exterior sheathing on sidewalls or roofs, and as a plaster base for exterior walls. Some makes are waterproofed for exterior use.

Generally speaking it is advisable to increase the amount of insulation used on ceilings as against the amount used on sidewalls. Usually the heat loss through the ceilings is greater than that through the sidewalls.

Proper ventilation through the use of louvres is necessary to insure an efficient job of insulation.

The details shown on the opposite page indicate the various types of insulation described here and the method for applying each particular type to the wall or ceiling. At the bottom of the detail sheet are shown three typical methods of insulating the roof and sidewalls, depending entirely upon the use to which the roof area is to be put.

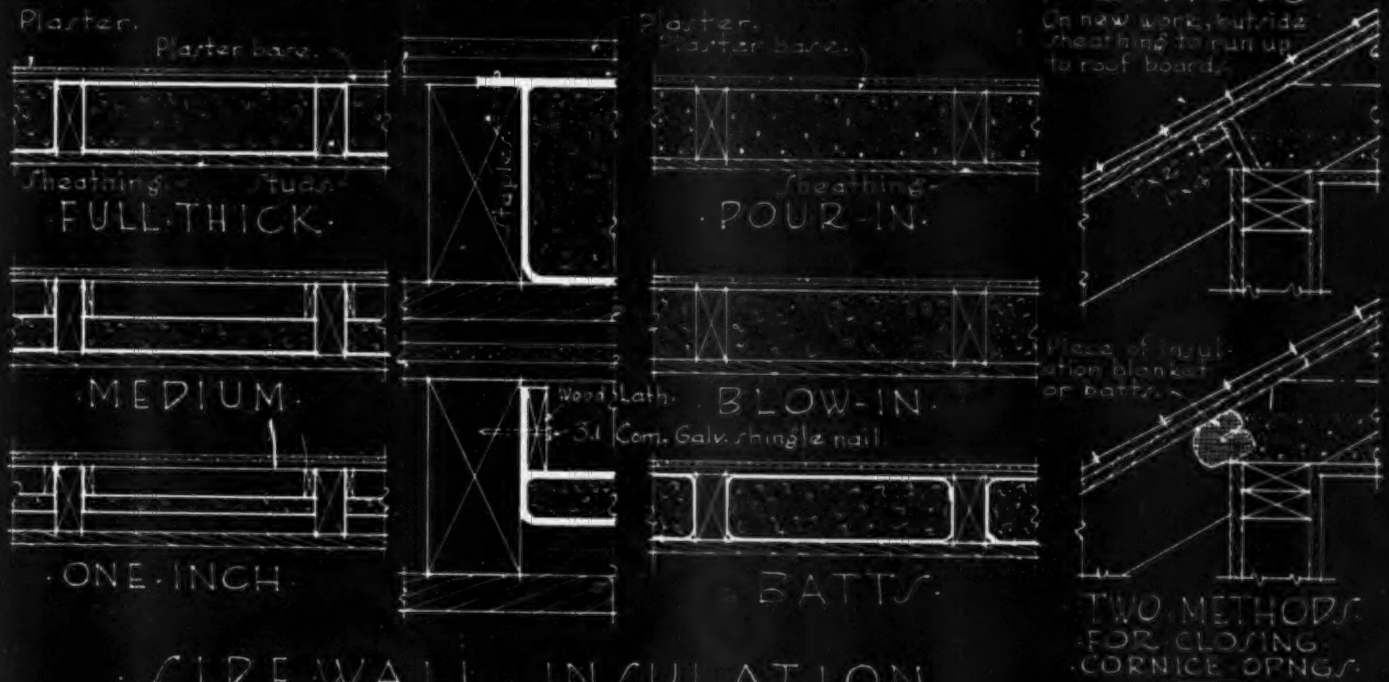
No attempt has been made to cover all the types of insulation now on the market as that would require a number of additional sheets, rather it was the thought to use the types that had received wide spread public approval and were easily obtained.

# BUILDER'S BETTER DETAIL PLATE

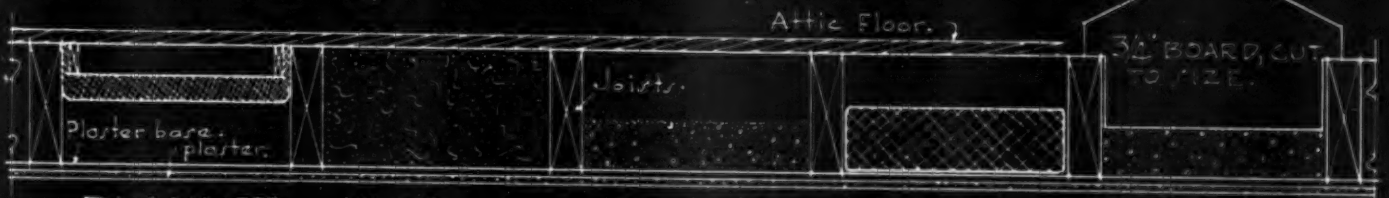
American Builder, September 1947.

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## NO D-35 INSULATION TYPES AND METHODS.



## SIDE WALL INSULATION.

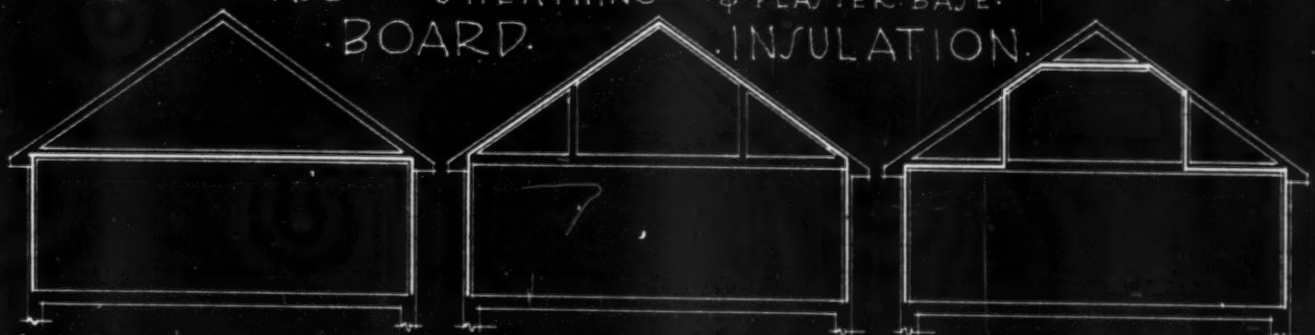


## BLANKET BLOW-IN POUR-IN BATT. CEILING INSULATION.

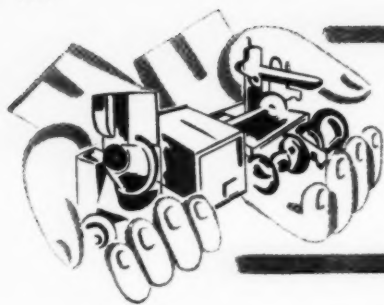
LEVELING OFF POUR-IN TYPE INSULATION BETWEEN JOINTS.



## BOARD INSULATION.



## LOCATION OF SIDEWALL AND ROOF INSULATION.



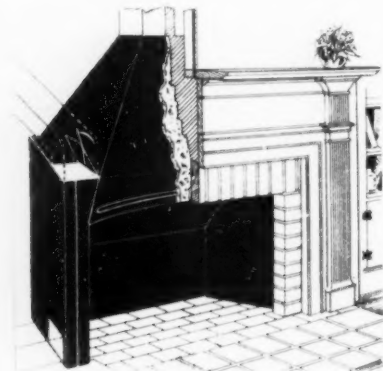
# NEW PRODUCTS

Offered by Manufacturers

## FIREPLACE HEATER

AB9706

Warmth from an open fire, wasted up a chimney or absorbed by massive masonry in an ordinary fireplace is saved by the Fyro-Place, a new and improved circulating heater developed for fireplace installation by the Price Fireplace Heater & Tank Corp., Buffalo 7, N.Y.

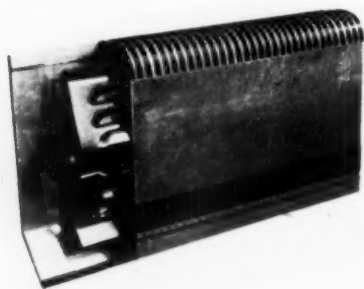


The one-piece fire box and down-draft shelf are made of 3/16 inch boiler plate. The smoke dome is scientifically designed. The fire box and smoke dome have been streamlined to provide the best draft controlled by a poker operated damper. Correctly designed and constructed, the Fyro-Place eliminates the danger of wrong construction due to guess work or the human element which is present in masonry construction.

## CONVECT-O-BASE RADIATION

AB9705

Convect-O-Base is a hollow aluminum baseboard covering one-inch pipe on which are clamped aluminum heat reflectors which deliver 720 B.T.U. per lineal foot. It eliminates radiators, has no dirt-catching cracks or crevices, and can be painted any color. The front cover is vented, top



and bottom, to allow passage of air, which absorbs heat from the reflectors and passes out the top of the baseboard. In a typical installation of

Convect-O-Base a one-inch pipe loop is run along the outside walls of a home, four inches off the floor. The loop can be continuous, running from one room to the next, and can be trapped under doorways and entrances. When installed as a loop system, Convect-O-Base radiation uses a forced hot water system of 220 degrees Fahrenheit at twelve pounds pressure. Steam may also be used to supply the necessary heat. Convect-O-Base is manufactured by the Minimite Co., 623 S. Kildare Ave., Chicago 24, Ill.

## ALUMINUM WINDOWS

AB9702

Precision aluminum windows which are sag-proof, jam-proof and weather-proof are offered by the Metal Arts Mfg. Co. Inc., P.O. Box 4144, Atlanta, Ga. Furnished complete with double-thick glass and Lumite screen the Metalart window comes ready for installation. With top and bottom anchors loosely bolted to frame, the window is hung into opening on screw or nail. Anchors are firmly attached to jamb, window adjusted in space and anchors securely tightened to frame. Dual-action, wherein upper sash automatically opens when lower sash is raised, is a special feature, as is the ventilation lock which locks the window at various open positions. The window comes in three standard size double-hung models, and is adaptable for residential, commercial and industrial installations.

## FLEXIBLE GAS-RANGE CONNECTOR AB9713

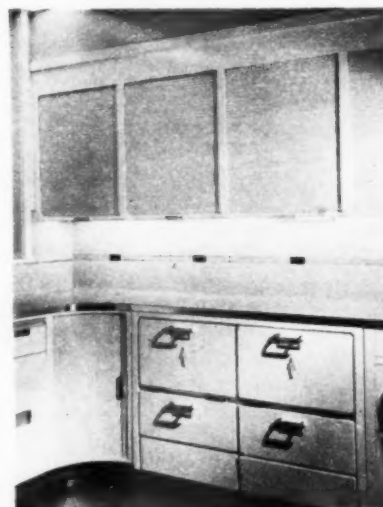
A new flexible gas range connection is being manufactured by the Chicago Metal Hose Corp., Maywood, Ill. Made of bronze and identified by the manu-

facturer as Rex-Weld, the connection permits moving any gas-burning unit flush to the wall after connecting. It also permits painting and cleaning around the unit without shutting off the gas. Approved by the American Gas Association and the Underwriters' Laboratories, Inc., this connection joins in the line of flexible connector RW-68 also designed and manufactured by Chicago Metal Hose.

## SLIDE-UP CABINET DOORS

AB9701

Roll-a-way cabinet fronts of extruded plastic have been developed by the Plastic Process Co. Inc., 662 N. Robertson Blvd., Los Angeles 46, Calif.



Up at a touch and out of the way, these fronts eliminate the menace of the swinging door. They are made of interlocking Plastimode strips and can be installed on corner curves as

(Continued to page 138)

## CHECK NUMBERS AND MAIL COUPON FOR INFORMATION

American Builder, 105 West Adams Street, Chicago 3, Illinois

NAME..... ADDRESS.....

CITY..... STATE.....

AB9701	AB9706	AB9711	AB9716	AB9721
AB9702	AB9707	AB9712	AB9717	AB9722
AB9703	AB9708	AB9713	AB9718	
AB9704	AB9709	AB9714	AB9719	
AB9705	AB9710	AB9715	AB9720	

When you address inquiries direct to manufacturers concerning a new product described here, please mention that you saw it described in American Builder.





# *Up Front-* **AND CENTER OF "SATISFACTION"**

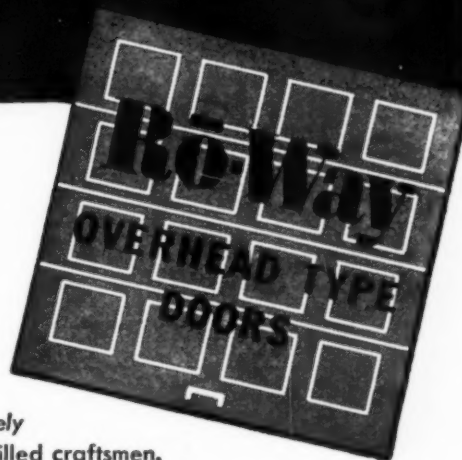
Time was when a garage door didn't dare show itself in the front of the house. Now—with the lasting good looks of Ro-Way Overhead Type Doors—it is both "a center of attraction" and of satisfaction.

Back of Ro-Way's simple beauty are exclusive features that make Ro-Way the smoothest-operating door any client could ask for.

Friction-reducing track; ball-bearing track rollers; power-metered springs; "crow's foot" outer bearing support.

Ro-Way can and does lead in value because every Ro-Way Door is completely fabricated and built in the Ro-Way plant—from finest materials—by skilled craftsmen.

No wonder Ro-Way is the most wanted door for today's "up-front" garages.



*Dependable Ro-Way sales and installation service available  
all over America. Write for free catalog.  
See our catalog in Sweet's.*

## **ROWE MANUFACTURING COMPANY**

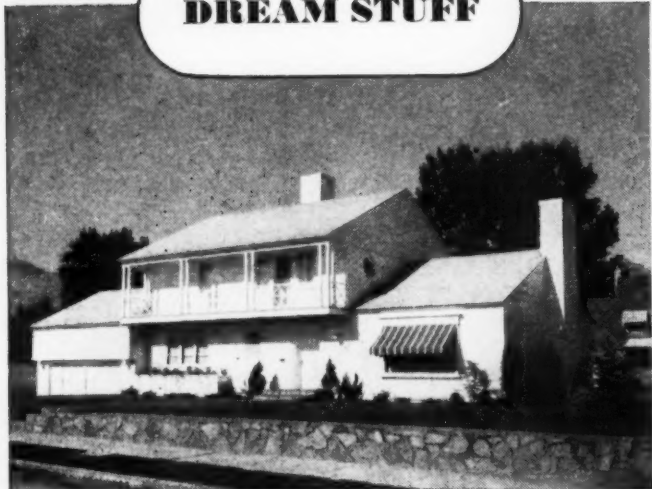
726 Holton Street

Galesburg, Illinois, U. S. A.

*There's a Ro-Way for every Doorway!*



## DREAM STUFF



Today the builders of America are making dreams of "a home of our own" a reality for thousands of families. And in so many of these new homes the Western Pines are found adapting themselves to an infinite variety of building uses and every type of architectural design.

Western Pines are noted for their beautiful texture and fine even-grain, and these versatile woods are preferred and used with confidence by architects and builders from coast to coast.

### IDEAS FOR BUILDERS

Here are three informative pieces of literature packed with helpful ideas. They will be sent you *free* upon receipt of a postcard.

"Painting Over Knots with Knot Sealer WP-578"

"10 Ideas for Modern Kitchens in Cheerful Western Pines"

"A Guide to Store and Shop Uses of Western Pines"

Address Western Pine Association, Dept. 9 T,  
Yeon Building, Portland 4, Oregon

\* Idaho White Pine

\* Ponderosa Pine

\* Sugar Pine

## THESE ARE THE WESTERN PINES

*Well-manufactured — thoroughly seasoned — rigidly  
graded — by all Association mills*

## Catalogs and HOW-TO-DO-IT INFORMATION

**349—HEAT LOSS CALCULATION SHEET**—based upon the methods recommended by the Institute of Boiler and Radiator Manufacturers is available from National Radiator Co., 221 Central Ave., Johnstown, Pa. Titled "The National Fitters Guide," the booklet provides a simple and accurate method of figuring radiation and selecting proper heater size.

**350—COLONIAL FIXTURES CATALOG**—featuring such traditional items as replicas of the famous Boston Post Lantern in wire post or wall mounting style, and electrical colonial wall sconces in reproduction of original candle holders has been prepared by the Metallic Arts Co., 131 State St., Boston 9, Mass.

**351—THE "CATERPILLAR" LINE IN ACTION**—the title of a 16-page color booklet issued by the Caterpillar Tractor Co., Peoria 8, Ill., describes and illustrates with on-the-job photos, the company's entire line of products—Diesel-powered track and wheel-type tractors, Diesel motor graders, Diesel industrial and marine engines and electric sets, bulldozers and scrapers.

**352—CONCRETE FORMS**—products of the Irvington Form & Tank Corp., 56 Main St., Irvington, N. Y., are the topic of two new folders just published. One covers steel slab forms for concrete construction, the other steel wall forms. Illustrations together with descriptive text tell how simply and easily construction can be carried out with the steel form units.

**353—AIR CONTROL CATALOG**—released by the Air Control Products, Inc., Coopersville, Mich., in 28-pages covers the company's line of air conditioning units from wall and floor registers and grilles to attic and roof ventilators. Illustrations are accompanied by descriptive copy, engineering data, installation hints and prices.

**354—BRIKCRETE . . . MODERNIZED MASONRY**—is the subject of a 12-page booklet published by Brikcrete Associates, Inc., 4669 Division Ave., So. Grand Rapids, Mich. Highlight of the booklet is the story of Brikcrete, its structural value and many applications to residential and commercial buildings.

**355—CONCRETE BLOCK MACHINERY**—produced by Fleming Manufacturing Co., 4985 Fyler Ave., St. Louis 9, Mo., is the topic of a two-color pamphlet. The various stages of block development from the raw material to the finished product is cleverly illustrated in a series of photos. Prices are given and several models shown.

**356—METAL WEATHERSTRIP CATALOG**—by the Central Metal Strip Co., 4343 N. Western Ave., Chicago 18, Ill., covers such items as weatherstrip tools, screen guides, stair nosings and metal mouldings. Specifications and prices are illustrated with photos and line drawings.

### SERVICE COUPON—CLIP and MAIL to CHICAGO

Readers Service Department

(September 1947)

American Builder,  
105 W. Adams St., Chicago 3, Ill.

Please send me additional information on the following product items, or the catalogs, listed in this department:

Numbers .....

Name .....

Street .....

City..... State.....

OCCUPATION\* .....

Please note that occupation must be stated if full service is to be given.

American



AL



\*Base  
price  
units,  
Back-  
to loc

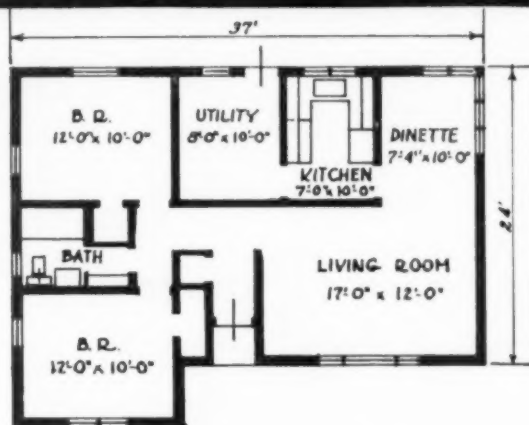
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\$327

**ALL THE MATERIAL** *for only*

**Sufficient to Build  
the 8" Exterior Walls of  
this Roomy Bungalow**  
*Or Its Square Foot Equivalent*



**Dunbrik and Dunstone combine to  
create new standards of Colorful  
Beauty, Comfort, Long Life . . . for  
amazingly low cost of materials**

Here's wall construction at a new peak point of *practical permanence*. All the long-life endurance values of solid 8-inch masonry, combined with a series of 2" wide horizontal chambers which imprison dead air to provide vital insulation.

Face Dunbrik on the outside—in a wide selection of smart colors. Dunstone for

back-up, in a size to fit the job. The two securely tied by a bonding course of 8" x 8" Face Dunstone.

This construction opens up tremendous new opportunities for building contractors and operative builders in the low-cost home field. Especially because it is directly in line with the swing toward masonry.

\*Based on a national average selling price of 22¢ per square foot for Facing units, and 15½¢ per square foot for Back-up. May vary slightly according to local costs of raw materials.

Dunbrik and Dunstone are produced by a country-wide chain of regional plants operating under franchise. Write us direct for name of manufacturer nearest you.

*New territories for local manufacturing are being arranged. If interested in this opportunity, wire or write for reservation.*

Sponsored by  
**W. E. DUNN MFG. CO.**  
 440 W. 23RD STREET  
 HOLLAND  
 MICH.

**DUNBRIK DUNSTONE**



# WEISWAY IS THE WISE WAY

Weisway Cabinet Showers harmonize with modern building materials for beauty and durability.



Built-in installation of corner entrance model made possible by Weisway In-A-Wall adapter.

War-time substitutes are no longer acceptable to the American people. In every field the demand is for fair value—for quality that measures up to price.

Materials that will not stand up in service, combined with slipshod design and workmanship will not "get by" in a critical competitive market.

## Weisway

Weisway pioneered the Cabinet Shower idea—won acceptance for it as a standard plumbing fixture. Now surveys show that half the people planning to build want separate shower baths. The one safe way—the wise way—to cash in on this demand is to install *quality cabinet showers*.

Weisway Cabinet Showers are precision-built to pre-war standards of quality, of materials that have been service tested for 11 years. Weisway quality protects your reputation, assures satisfied owners. Write now for details about models available for immediate shipment.

**HENRY WEIS MFG. CO., INC., 901 WEISWAY BLDG., ELKHART, IND.**

### NEW PRODUCTS

(Continued from page 134)

well as in regulation cabinets. Available in ivory, white, green, blue and red, these fronts are recommended for openings up to two feet six inches in width. The manufacturer offers the Plastimode strips to millwork and cabinet makers and to operative builders and lumber dealers who have power cabinet shops.

#### MEDIUM-SIZED PAYLOADER

AB9711

The production of a medium-size Model HF Payloader is announced by the Frank G. Hough Co., Libertyville, Ill. Completely new in design and construction, the Model features a 4-speed fully reversible transmission which makes practical forward digging speed; plus high reverse maneuvering speed; available with a minimum of shifting



The bucket is raised, lowered, dumped and relatched by hydraulic power, controlled by a single lever. Additional features are large wheels equipped with hydraulic brakes, automotive type steering, and complete visibility in all directions. Excavation, stripping, grading, handling coal, cinders, fertilizer, chemicals, salt, clay, borings or any bulk material are jobs handled by Model HF.

#### NEW TYPE SINK FRAME

AB9712

A sink frame designed for use with Masonite, linoleum, and rubber is being manufactured by Metal Trims, Inc., 1455 South Ave., Youngstown 2, Ohio. According to the manufacturer any amateur can install the frame



since it is applied over the cover and requires no fitting of the material. The frame is easily removed should the waterproof seal of the covering at the edge of the sink break and start to lift as sometimes happens. When the covering is waterproofed again, the

(Continued to page 140)



**"Remington Rand's  
PRINTING CALCULATOR  
gives you printed figure facts"**



**\*divides automatically  
and prints**

9 8 7 3	DIVIDEND
2 4 7 0 0	
1 4 7 0	DIVISOR
0 4 7	THE ANSWER
3	REMAINDER

**multiplies electrically  
and prints**

3 7 8 9 0 0	MULTIPLICAND
2 7 8 9 0	MULTIPLIER
4 7 8 9	THE ANSWER
2 5 5 6 3 6	

**adds, subtracts  
and prints**

6 3 4 5 4	ADDS
2 4 6 9	SUBTRACTS
8 3 5 6 2	ADDS
1 4 4 5 4 7	THE ANSWER

**the PROOF  
is on the TAPE!**

Management needs proved figure facts on which to base important decisions. Inventory reports, profit percentages, cost estimates and the multitude of figure information necessary to run a business must be computed accurately. That's why Remington Rand's Printing Calculator serves every size business by eliminating incorrect computations and misleading reports . . . by saving valuable time ordinarily lost copying figures and re-calculating problems.

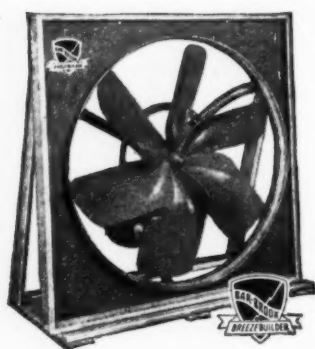
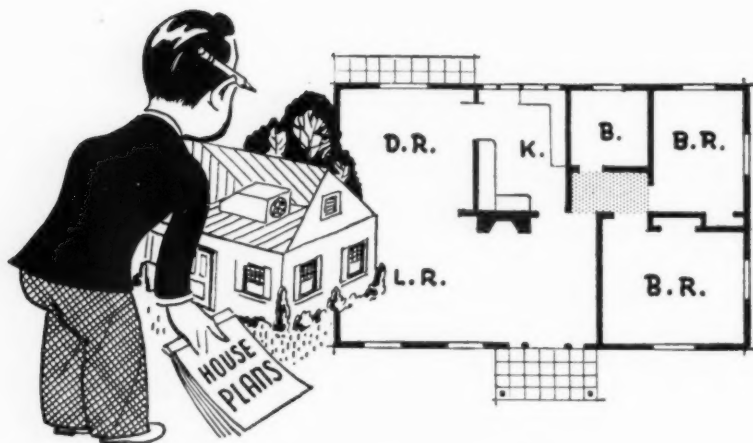
Your facts are right the first time when the printing calculator produces your figures. This machine never relies on assumptions . . . it automatically prints on the tape each factor and answer of every calculation. You never have to repeat a problem . . . the printed tape is your first-time proof of accuracy and a permanent record to which you can refer weeks or months later. Compact and simple to operate, the 10-key printing calculator gives you complete, rapid figuring service. It multiplies and divides automatically, adds and subtracts—and prints each factor.

Ask your Remington Rand representative for a demonstration, or write for further information to Remington Rand Inc., Adding-Bookkeeping-Calculating Machines Division, Department ABU, 315 Fourth Avenue, New York 10, New York.

**Remington Rand**

MACHINES FOR MANAGEMENT

## A BAR-BROOK Fan Completes the Plan!



**Give the home owner  
an added comfort  
with a proven and  
preferred product!**

The buying trend is back to well established brands, nationally advertised trade names, and quality merchandise. Bar-Brook offers the Buyer and the Builder all these.

The quality of Bar-Brook fans and the know-how gained by 15 years experience, is being told to millions in national advertising.

They carry FHA approval, the Good Housekeeping Seal, and the UL Emblem.

The prestige of Bar-Brook Fans mean extra profits and increased sales appeal for your homes. Include a Bar-Brook Breezbuilder\* Installation in every plan. Write for complete specifications on the 4 available sizes and the name of your nearest Bar-Brook Distributor.

**FREE INSTALLATION MANUAL**—The most complete book of its kind ever printed. 48 colorful, instructive pages. A request on your letterhead will bring it without charge or obligation.

# BAR-BROOK FANS



The Bar-Brook Windo-Wind Window Fan. Ideal for small homes, apartments, offices. Suitable for permanent installation in many buildings.

\*Trade Mark



**BAR-BROOK MFG. CO., INC.**  
(Formerly Shreveport Engineering Company)

1553 Texas Avenue... Shreveport, La., U. S. A.



(Continued from page 138)

frame can be replaced, having suffered no damage whatsoever. A complete set of trims to match this frame is also available.

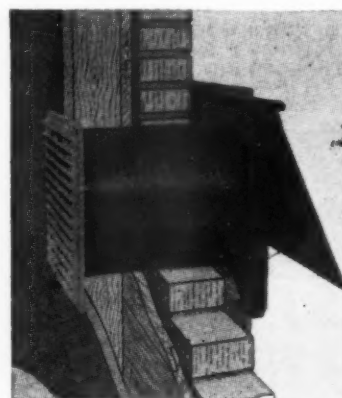
### AUTOMATIC WATER HEATER AB9719

A completely automatic oil-fired water heater is the new product of the Mt. Pleasant Heater Corp., 710 South Oak St., Dept. 1, Mt. Pleasant, Mich. This heater has a high lustre baked enamel outer shell, operates noiselessly, and contains no moving parts. Its outstanding features are a 7-inch pressed steel, gravity type oil burner; 20 gauge steel outer casing; tank galvanized inside and out with a 12 gauge shell, 10 gauge top head, 7 gauge bottom, and 10 gauge flue wall; an automatic thermostatically controlled oil valve; instant action, constant level oil control with water temperature adjustment; easily released heavy steel burner support; and recovery 33 gallons per hour (60 degree rise). The heater uses No. 1 fuel oil and has a capacity of 25 or 35 gallons. It is approved by Underwriters Laboratories, Inc.



### EXHAUST-TYPE VENTILATOR AB 9718

An exhaust-type ventilator designed for use in kitchens, laundries, recreation rooms and bathrooms is announced by the F. A. Smith Manufacturing Co. Inc., Rochester, N. Y. A single control opens and closes the outside door and starts and stops the fan automatically. A straight-line air movement, made possible by the engineered design of fan, motor and telescoping tubular duct,

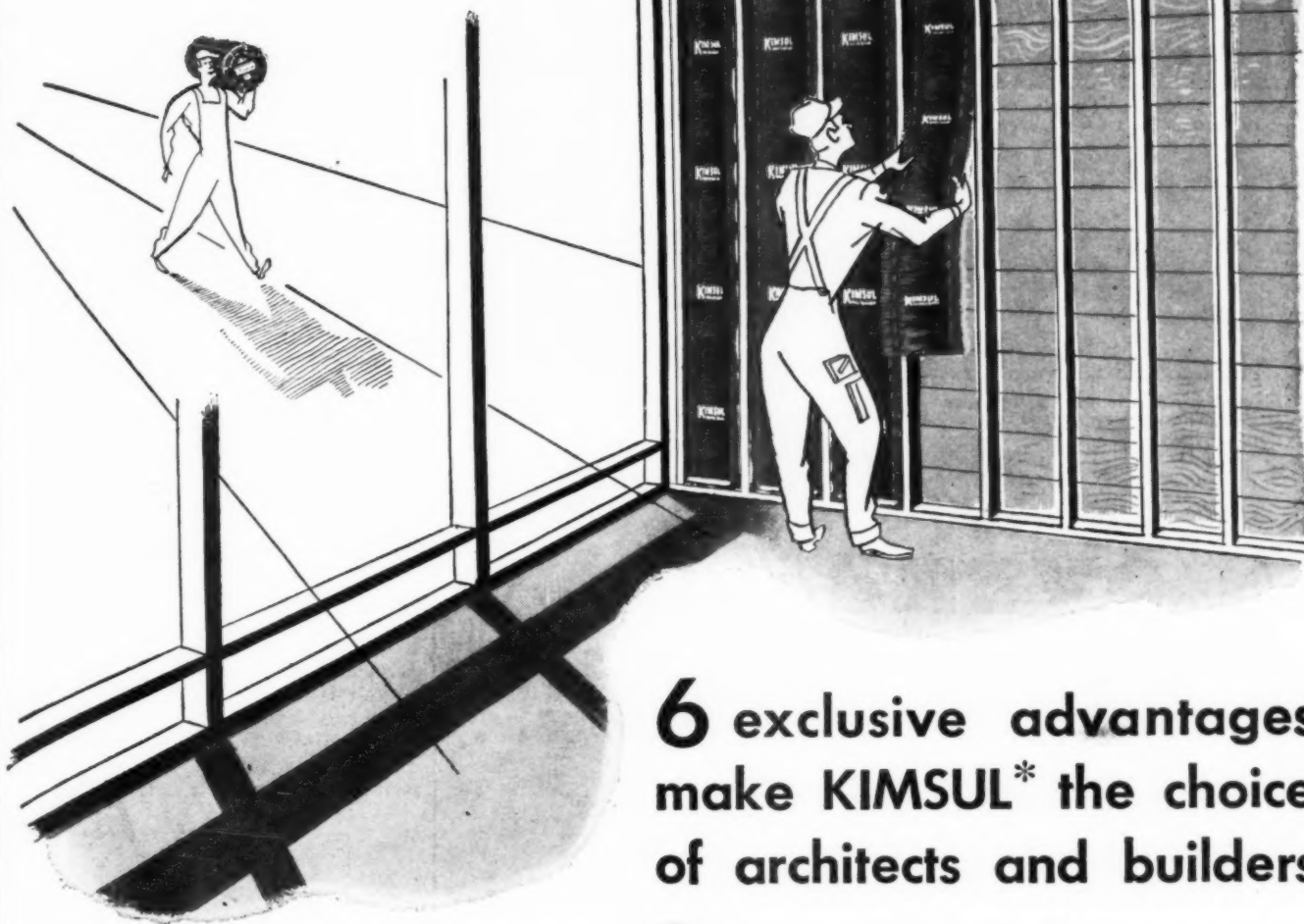


changes the air completely every 3 minutes. The ventilator fits walls from 5 inches to 9½ inches thick and up to 13¾ inches with an extra sleeve. The grille, door and duct are constructed of steel. The grille is finished in white, baked-on

(Continued to page 142)



# Here they are...



## 6 exclusive advantages make KIMSUL\* the choice of architects and builders

KIMSUL insulation resists fire, moisture, fungi and vermin — is termite-proof. Packaged in easily handled rolls and cut to fit standard stud and rafter widths, it can be installed without expensive machinery or skilled labor. It's light in weight, clean, and odorless . . . no irritating dust or sharp particles to injure workmen's skin.



For complete details on how to insulate with easy-to-use KIMSUL, send for this informative Application Data File. Simply forward the request on your letterhead.

**KIMBERLY-CLARK CORPORATION**  
KIMSUL DIVISION • Neenah, Wisconsin



\*KIMSUL T. M. Reg. U. S. & Can. Pat. Off.  
†PYROGARD trademark

① **Many-Layer Construction.** KIMSUL\* insulation is a prefabricated blanket made on the many-layer principle. The many layers create millions of tiny air-cells to give KIMSUL its remarkable insulating efficiency ("k" factor 0.27). And many-layer construction provides dependable, uniform thickness over every square inch of insulated area.

② **PYROGARD† Cover.** Only KIMSUL insulation has the PYROGARD cover — chemically treated, just as the inner layers of KIMSUL are treated, to resist fire.

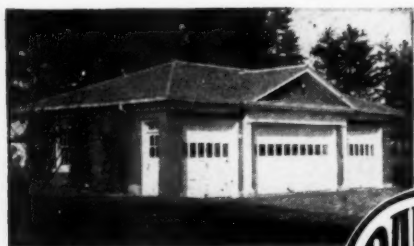
③ **Compressed Package.** Delivered compressed to 1/5th installed length, KIMSUL saves labor, space, and time.

④ **Extra Width.** The KIMSUL blanket is made extra wide to provide fully insulated fastening edges . . . and to fill extra wide framing spaces.

⑤ **Use For Caulking.** Trimmed pieces of KIMSUL are efficient for caulking around windows and door frames.

⑥ **Flexible Blanket.** Many-layer KIMSUL insulation can be easily tucked around obstructions, fitted into non-standard openings, pulled around corners.

As members of the Producers' Council, Inc., we are cooperating in the Industry-Engineered Housing Program sponsored by the Producers' Council and the National Retail Lumber Dealers' Association.



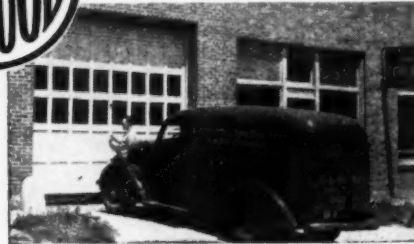
A beautiful residence garage using two sizes of standard Barcol OVERdoors.



A standard Barcol OVERdoor in an ice-manufacturing plant storeroom.



This modernized horse barn employs standard Barcol OVERdoors for space and heat saving.



Small manufacturing plants, service garages, and the like have standard Barcol OVERdoors.

## Standard Barcol OVERdoors SOLVE LOTS OF PROBLEMS —IN LOTS OF PLACES...

Sturdy construction, readily adaptable design, and ease of operation make the *standard* Barcol OVERdoor useful for many other applications in addition to its regular use on residence garages. A few of these are suggested in the pictures above. Remember — consider a *standard* Barcol OVERdoor whenever you have an unusual or difficult door problem that needs solving. Consult your Barcol representative.

*Only the Barcol OVERdoor  
has all of these features*

1. ROLLER-CRANK CLOSING ACTION.
2. SELF-LATCHING BOLTS.
3. TWIN-TORSION TAILORED SPRINGS.
4. CONTINUOUS VERTICAL TRACK BRACKETS.

FACTORY-TRAINED SALES and SERVICE REPRESENTATIVES IN PRINCIPAL CITIES

# BARBER-COLMAN COMPANY

104 MILL ST. • ROCKFORD, ILL.

(Continued from page 142)  
enamel and the door and duct are finished in a corrosion-resistant paint. The outside door, when closed, is held tight under tension against a rubber gasket, assuring a positive weathertight seal.

### PLASTIC COATING

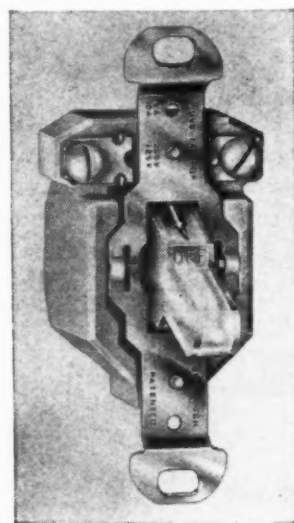
AB9720

A plastic coating which keeps concrete from sticking to concrete forms, and at the same time preserves the forms for indefinite use is being produced by the Calresin Corp., Culver City, Calif. Subjected to numerous tests, this coating has proved to be impervious to water, salt air and water, and most mild acid solutions. It hardens, toughens and preserves paper, plywood, common lumber and plaster. The concrete forms on which the coating was tested were made of plywood and common lumber for casting panels of lightweight aggregate and cement, 6 feet high and 8 feet wide. After an application of this coating, the forms which previously could be used only once, were used 26 times without any retouching whatsoever. The product is called Plastiglaze.

### NEW TYPE WALL SWITCH

AB9707

An electric light wall switch equipped with a neon light in the switch handle is the new product of Roberts Glo-Switch Division, 700 Jamaica Ave., Brooklyn 8, N.Y. The switch is so designed that when the overhead lights are turned on, the handle light is out, but when the overhead lights are off, the handle switch glows with a soft light. This



reduces the hazards caused by failure to find the light switch in the dark, and prevents groping fingers from marking the wall around switch. The switch is a single pole type and will fit any standard receptacle for this kind of switch. The switch handle is available in a variety of colors. The electric current for the switch handle light costs less than two cents per year and the light will last for a two year period. Fully covered by patents, the switch is approved by the Underwriters Laboratories.

(Continued to page 144)

# "...to any roofer desiring a superior asphalt" (Read this letter)

WALLS ROOFING COMPANY  
ROOFING AND SHEET METAL  
TILE, SLATE AND COMPOSITION ROOFING  
324 E. LA CHAPPELLE ST. PHONE CATHEDRAL 1871  
SAN ANTONIO 4, TEXAS

June 16th., 1947

Mr. C. S. Heltzel  
c/o The Texas Company  
San Antonio, Texas

Dear Sir:

We have consistently used Texaco Roofing Asphalt, both No. 30 and No. 35 grades, in our Built-Up Department for the past eight years.

We have always found the product to be of uniform quality and melting point. This is a very desirable characteristic in an asphalt because it permits of fast, smooth and uniform spreading with the mop. Furthermore, we like the manner in which The Texas Company packages their Asphalt - the paper bags are coated with a preparation that permits of clean, fast and easy stripping on the job. We especially appreciate the purity of Texaco Asphalt when we clean out our kettles - there is a minimum of residue or ash. This absence of ash or residue prevents burning out kettles prematurely.

We have found Texaco Roofing Asphalt entirely satisfactory and gladly recommend it to any roofer desiring a superior asphalt.

Yours very truly,  
WALLS ROOFING COMPANY

*[Signature]*

Owner



In 100-lb.  
Cartons and  
Paper Bags



**Now  
AVAILABLE!**



## TEXACO SOLID ROOFING ASPHALT

### Asphalt SHINGLES and ROOFING





## Easy to Install..

### AND HOW IT PLEASERS CLIENTS!

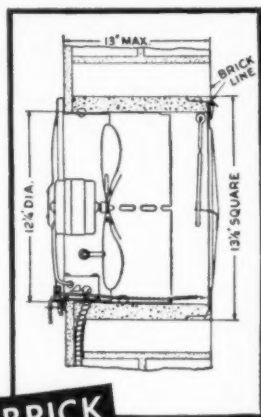
You're bound to be pleased, and your clients, too, when you specify Emerson-Electric Kitchen Ventilating Fans in your home-building or modernization plans.

Priced surprisingly low, these sturdy fans whisk out kitchen cooking heat and odors, prevent spread of greasy vapors to living room furnishings, woodwork, walls and curtains.

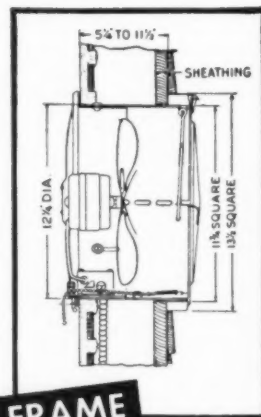
Square, weather-tight outer door frame is easy to brick or frame around. Telescoping sleeve is adjustable to any wall thickness up to 13 inches. Ten-inch quiet-type fan blades move 570 CFM in free air.

For installation data, refer to the Emerson-Electric Catalog in 1947 Sweets Architectural File, or write for free Folder No. 208 today!

**THE EMERSON ELECTRIC MFG. CO.**  
St. Louis 21, Missouri



**BRICK**



**FRAME**

43

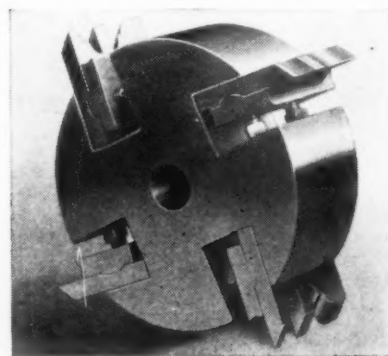
**EMERSON**  **ELECTRIC**  
MOTORS · FANS · APPLIANCES

(Continued from page 142)

#### WOODWORKING MACHINERY AB9704

The R. N. Fenton Co., manufacturers of woodworking machinery, 1960 East Milwaukee Ave., Detroit 11, Mich., have two new products of interest to building contractors: the Fenton Moulding Head and the Fenton Form Knives.

The Fenton Moulding Head is designed for use on overhead arm woodworking machinery, radial saws, special arbors and shapers. This head is 4 inches in diameter by 1 3/4 inches thick with a maximum arbor hole and counter bore of 1 3/8 inch. When 4 knives are used in this head, the cuts per minute are equivalent and the finish obtained comparable to high speed two-knife

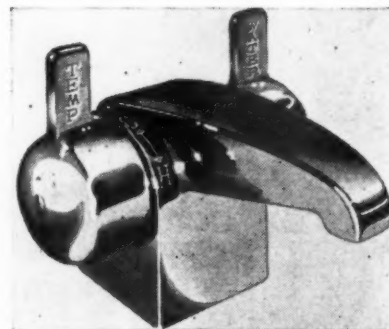


machines. The head can be used with knives made to customer's pattern for shaping, moulding, jointing, and pattern work. Used in conjunction with radial arm saws, the head becomes a rafter notching tool.

The Fenton Form Knives are pre-formed to the customer's pattern and manufactured in sets for use with the Fenton Moulding Head. All knives in each set are ground simultaneously so they are exactly the same length and will not require adjustment when used with the head.

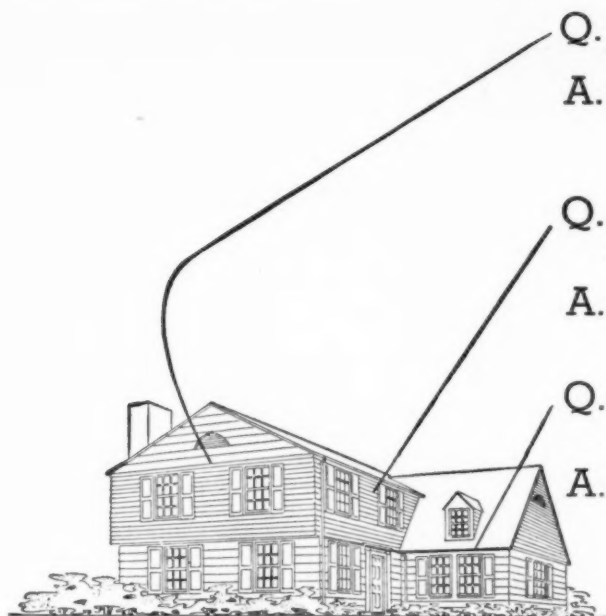
#### WATER FAUCET AB9703

A handsome mixer sink faucet with the novel feature of a temperature control valve is being marketed by the Cole Valve Co., 212 Lonsdale Bldg., Duluth 2, Minn. This feature eliminates the



need of "handle juggling" to get the right temperature and ends the danger of hand scalding. Made of solid brass heavily plated with chromium, the faucet will mount on nearly any type

(Continued to page 146)



Q. What is an effective way of preventing heat loss through the stairway to an attic?

A. See Balsam-Wool Application Data Sheet, Section D, No. 3.

Q. Which is the more practical of the two ways of calculating heat transmission coefficient in wall construction?

A. See Balsam-Wool Application Data Sheet, Section A, No. 3.

Q. How does one calculate the amount of insulation needed to prevent condensation moisture on inside surface of walls and roofs?

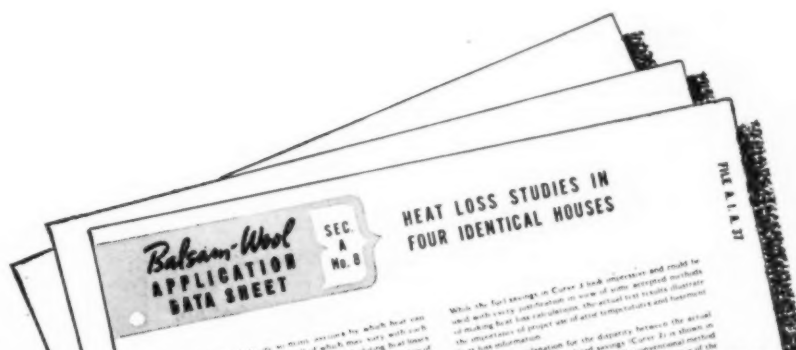
A. See Balsam-Wool Application Data Sheet, Section A, No. 7.

## HARD-TO-GET FACTS

... now easily available

### Balsam-Wool Data Sheets

Quick, easy, authoritative answers to tough insulation application problems—you'll find them in Balsam-Wool Application Data Sheets! These sheets combine the results of laboratory and field research—place hard-to-get facts at your finger tips. Sheets are conveniently assembled in an A.I.A. file folder. Mail the coupon today for your set of Balsam-Wool Data Sheets—they are yours for the asking without obligation.



**Balsam-Wool**

SEALED INSULATION

REG. U. S. PAT. OFF.

BALSAM-WOOL • Products of Weyerhaeuser • NU-WOOD

WOOD CONVERSION COMPANY  
Dept. 119-97 First National Bank Building  
St. Paul 1, Minnesota

Please send me set of Balsam-Wool Application Data Sheets.

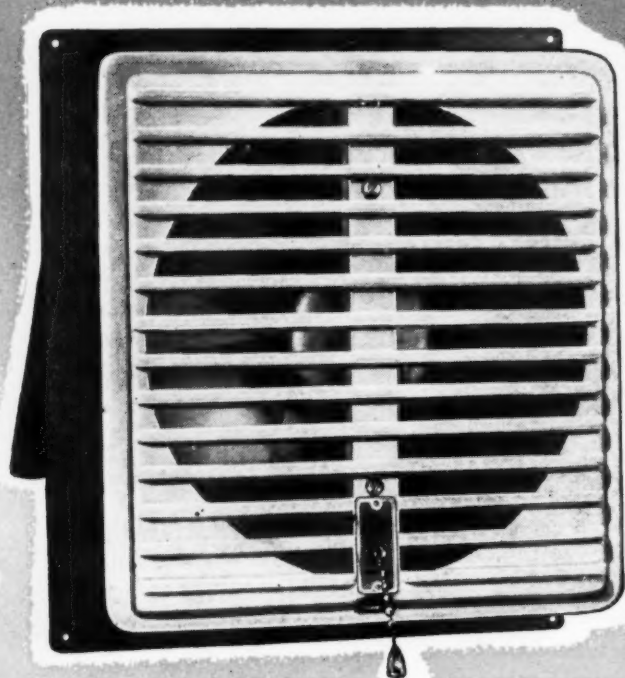
Name .....

Address .....

City ..... State .....

**NO OTHER popular-priced ventilator  
gives as many Quality Advantages**

**... AS THE NEW  
\* FASCO AUTOMATIC KITCHEN  
VENTILATOR**



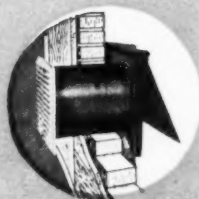
★  
**BUILD YOUR  
KITCHENS  
CLEAN, COOL  
AND  
COMFORTABLE**



**LIST PRICE  
ONLY**

**\$24<sup>95</sup>**  
INCL. TAX

*Slightly higher  
in the West*



**Typical Cross Section  
of Ventilator Installed**

- ★ **AMAZING LOW PRICE**—gives your homes greater ownership appeal at low cost.
- ★ **NEW HIGH EFFICIENCY**—moves 405 cubic feet of air per minute. Yet uses no more current than a 40-watt bulb!
- ★ **ONE CONTROL** opens and closes the outside door, and starts and stops the fan automatically.
- ★ **NO NOISE OR RADIO INTERFERENCE**—equipped with a long-lived shaded pole motor.
- ★ **POSITIVE, WEATHERTIGHT SEAL**—Closed door held tight under tension against rubber gasket.
- ★ **QUICK, EASY INSTALLATION** in new or old homes through any type of wall construction.
- ★ **SAFER, CLEANER** operation. No fire hazard or clogging from accumulated grease.
- ★ **ADAPTABLE** to many wall thicknesses—from 4¼" up.
- ★ **EASY TO CLEAN** both the grille and duct.
- ★ **WRITE TODAY** for complete information.

**A PRODUCT OF**

**FASCO**

★

**F. A. SMITH MANUFACTURING CO., INC., ROCHESTER 2, N. Y.**

Gentlemen:

AB-1

Please send complete information on the New Fasco Automatic Kitchen Ventilator.

Name \_\_\_\_\_

Street \_\_\_\_\_ City \_\_\_\_\_ State \_\_\_\_\_

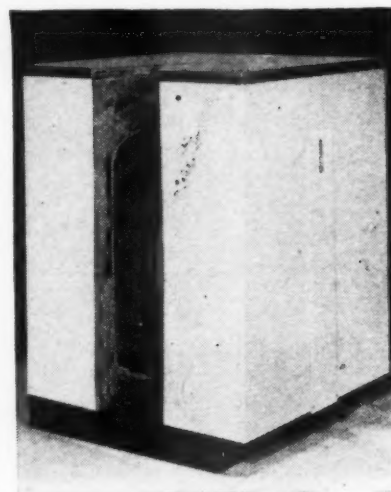
My Electrical Jobber Is \_\_\_\_\_

(Continued from page 144)

of basin and is easy to install. A valve on the right controls the water supply, while the valve on the left controls the temperature of the water.

**COUNTER-HIGH WATER HEATER AB9708**

An electrically heated hot water tank to work into the kitchen assembly at counter height is now available from Abco Manufacturing Co. Inc., 1520 Leary Way, Seattle, Wash. This square tank has a Formica top to

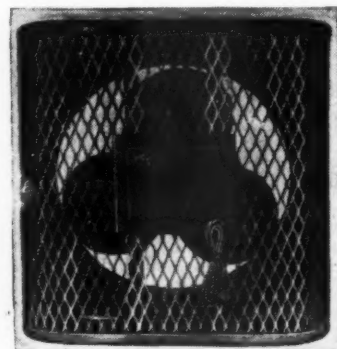


blend in color with the kitchen decorative scheme. Side casing is baked white enamel. Heavy insulation of fibre glass keeps water hot and room cool. Trent heating elements and dependable Titan thermostats are built-in. Convenient toe space gives the same working comfort as other units in kitchen or utility room.

**AIR CONDITIONER**

AB9717

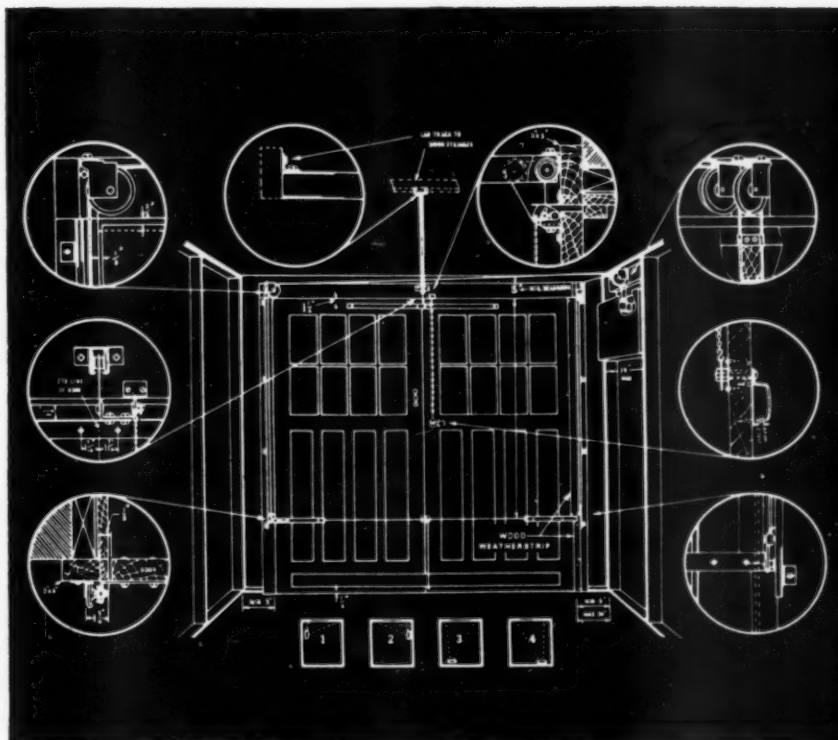
Both air cooling and ventilating are achieved with the new Seco window fan. Encased in an expanded metal grille finished in ivory white enamel, the fan is belt driven with a low-speed quiet motor. Its overall dimensions are 24 inches by 24 inches by 10 inches and it requires a minimum window opening 20



inches by 20 inches. Installation is limited to placing the fan on window sill with fan blade opening towards the window and fastening chains (on sides of fan) to points on window jamb that will hold fan securely in place. For complete ventilation throughout, all windows should remain open; for rapid circulation.

(Continued to page 148)





## FOR GARAGE DOOR REMODELING

YOU CAN'T BEAT THE



### NO. 500 SWING-OVER HARDWARE SET

- The popular, fast-selling No. 500 Hardware Set is adaptable to practically all types of garages.
- It is economical to use on remodeling jobs or new installations.
- It is easy to erect and to operate.
- It doesn't interfere with usable floor space.
- All hardware (except locking handle) is inside the garage. Send for catalog showing full line of hardware for numerous types of sliding doors—garage, barn, airport, wardrobe, cabinet. Other Coburn Products include fire door hardware, overhead trolleys and conveying systems for carrying loads up to 3,000 lbs.

### WICKWIRE SPENCER HARDWARE PRODUCTS



#### "American" Brand Insect Wire Screening

Made in standard mesh and in grades to suit every purse and purpose—bright or antique bronze, galvanized, aluminum and other non-ferrous metals.



#### "Clinton" Brand Hardware Cloth

Made of cold-drawn carbon steel, heavily galvanized after weaving to give added strength at intersections. In all standard meshes and widths.



#### "Clinton" Brand Poultry Netting

Woven to give it strong selvage which makes it more durable. It hangs well and is easy to handle. In standard gauges 12" to 72" widths.



#### "Perfection" Brand Door Springs

Made of selected wire and carefully japanned. Unequaled for toughness, durability and resistance to rust.



#### Wickwire Spencer Wire Rope

In all sizes and constructions for every need.

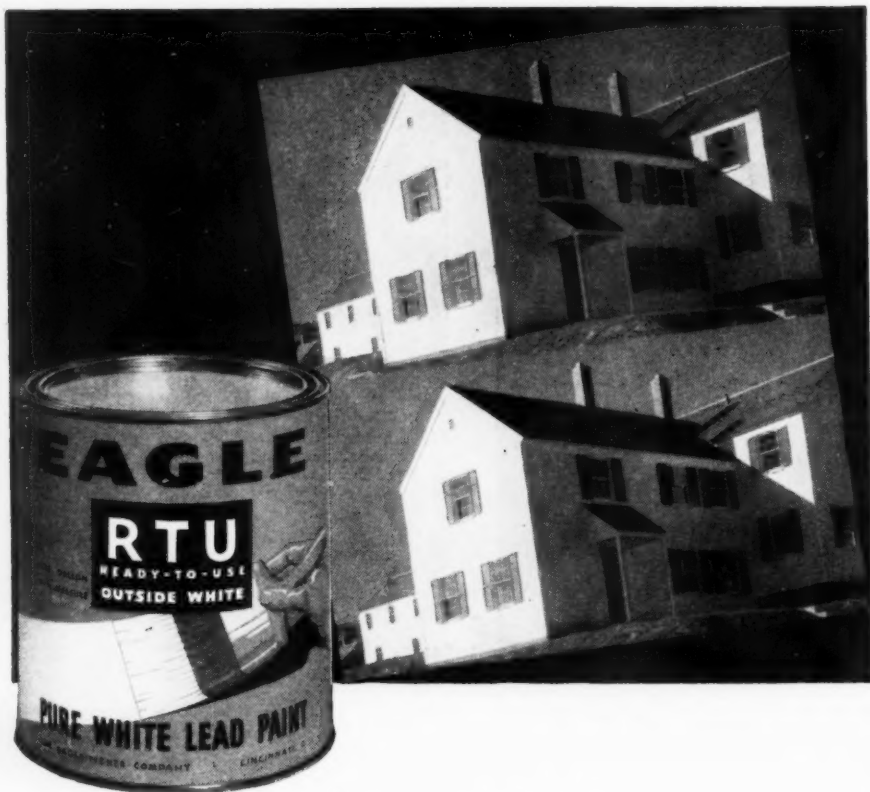


## WICKWIRE SPENCER

*Steel*

A DIVISION OF THE COLORADO FUEL AND IRON CORPORATION  
500 FIFTH AVENUE  
NEW YORK 18, N. Y.

Boston • Buffalo • Chicago • Dallas • Denver • Philadelphia • Pacific Coast—The California Wire Cloth Corp., Oakland 6, Cal.



## does double duty

1. Being pure white lead, Eagle RTU has traditional beauty and durability.
2. It's factory-mixed for new efficiency, goes to jobs in original containers.

1. Eagle RTU's fine brushing and hiding qualities make for easy application.
2. Its smoothly gleaming coat gives lasting distinction to your buildings.

1. Eagle RTU is favored by builders for its time-and-labor-saving convenience.
2. It's preferred by homeowners for its whiter white that stays white longer.

1. Eagle RTU is pure white lead paint in a modern form.
2. It is backed by Eagle-Picher's 104-year-old reputation.



**THE EAGLE-PICHER COMPANY**  
CINCINNATI (1), OHIO  
Member of the Lead Industries Association



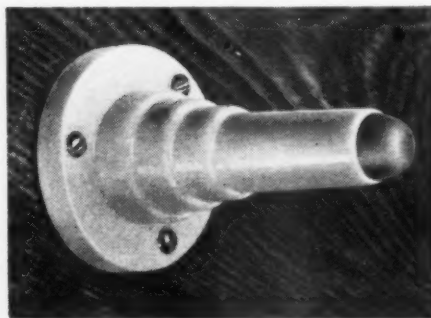
(Continued from page 146)

tion in one specific room, all other openings should remain closed or size of openings be reduced. The Seco-Lite Mig. Co., 4916 Easton Ave., St. Louis 13, Mo., is the manufacturer.

### MADUCO DOORSTOP

AB9709

A new Maduco Door Stop has been introduced by the Macklanburg-Duncan Co. of Oklahoma City, Okla. This door stop is fastened firmly to the



wall three ways to keep it from pulling loose, and has a rubber tip inserted in its end that cannot break out or crush. The door stop is light in weight, sturdy in construction, and attractive in design. It comes in ivory, bronze or aluminum finish.

### SASH BALANCE-WEATHERSTRIP AB9716

A combination sash balance-weatherstrip is available from the Milwaukee Metal Strip Service, Inc., Milwaukee, Wis. The combination consists of spring bronze channel side strips, in conjunction with cadmium-coated steel springs, to replace the old type system of cords-weights-and-pulleys. The channel side-strips act as vertical weatherstripping and, when used in conjunction with ordinary horizontal cross members of zinc, result in a complete weatherstripping job.

### NEW WALL PANELS

AB9711

Wall panels of sturdy, durable Presdwood, finished to simulate wood grains, are available from the Service Products Division, Woodall Industries, Inc., 2035 Calumet Ave., Chicago 16, Ill. The panels are smooth, dur-



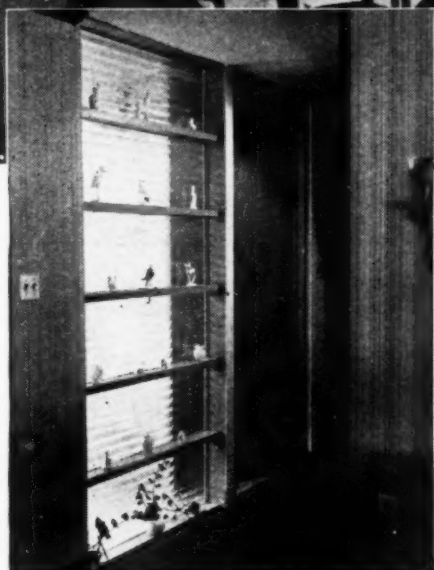
able, moisture resistant, non-warping and may be cleaned with a damp cloth or waxed. They are shipped ready for use and are easily installed. Their bevelled edges may be butted together

(Continued to page 150)

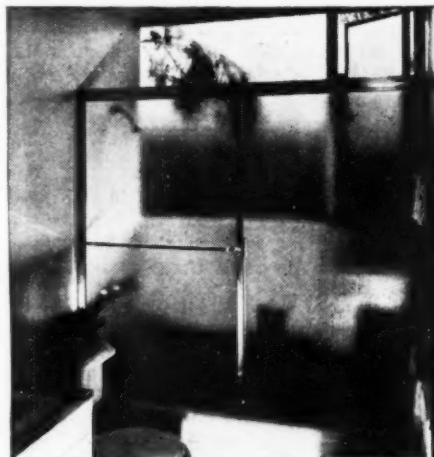
# Lasting Beauty



*Thermopane* units made with Flutex in crossed pattern achieve privacy plus cheerful light. Office of Dr. Carl T. Moore, Kansas City, Mo. Architects: Carroll & Dean.



Flutex panel admits daylight to entrance hall, obscures view. Architect: Ned Cole.



Luminex encloses bathtub . . . sparkling and easy to clean. Home of Mr. and Mrs. Ted Bonnett. Architect: Richard Neutra.

## for Every Building Budget

● In large homes or small, you can build in never-fading sparkle . . . with *Patterned Glass*.

Easy to install, this versatile glass adds character to every room . . . combines luxury with economy, beauty with utility. Clear or *Satinol*-finished, it is ideal for walls, partitions, panels or screens where light is essential yet privacy is required.

Your near-by L·O·F Glass Distributor will show you over 20 patterns in Blue Ridge Glass. Used alone or in combination, they provide wide choice in creating unusual effects. For ideas adaptable to buildings of all types, write for our *Patterned Glass* Modernization book. Blue Ridge Sales Division, Libbey · Owens · Ford Glass Company, 197-A Nicholas Building, Toledo 3, Ohio.



## BLUE RIDGE Patterned GLASS



FOR SOFT, DIFFUSED LIGHT • SMART DECORATION • COMPLETE PRIVACY





## WHY NOT?

### Use the Plans Proven by These Successful Builders

Homes like these, built from Wollander Concrete House Plans, have beauty, charm, sales appeal. Al La Pierre and associates of Seattle report that they sold 13 of their concrete block "Perma-therm" homes on a recent Sunday at their Ridge Crest development, all built from the new Wollander Package.

This complete Package of concrete block house plans for operative builders gives you clear details of successful block construction plus many embellishments to vary the design and "warm up" the coldness of the block wall. You can reduce building costs and create more attractive, sturdy and saleable homes by using the Wollander Concrete house plans.

Wollander now offers you this complete Package of practical plans, designed especially for use of 8 x 8 x 16 concrete blocks.

Consists of six good, proven basic plans, with attached garages, in sizes 720 to 1104 square feet, exclusive of garage. Two- and three-bedrooms. Over thirty-five excellent exteriors, permitting much exterior variety in group house building. Radiant heat layouts. Specifications. Plans 1/4 inch scale, fully detailed.

Proven by some five hundred houses built, or in the mill, using these plans; the hottest selling house on the market today.

Sufficient designs to lay out one thousand (1,000) or more houses. All for \$100.00. Additional sets of any one basic, with exteriors, \$5.00 each.

This Package available to Builders operating anywhere except in Washington and Oregon, where plans can be obtained through the established Wollander Better Builder Plans service.

W. A. WOLLANDER,  
Tacoma Building, Tacoma 2, Washington

#### COUPON—ORDER TODAY

W. A. Wollander, Tacoma Bldg.,  
Tacoma 2, Washington

Enclosed is check for \$100, for which send your new Complete Package of Working Drawings for Concrete Block Homes.

NAME .....  
Street Address .....  
Town ..... State .....  
Occupation .....  
Number houses contemplated .....



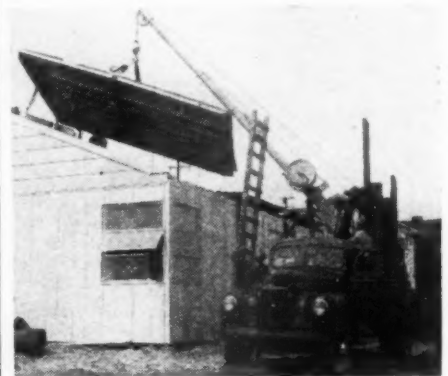
(Continued from page 148)

and nailed in the score line, or cement may be used to install them. The standard size panel is 3/16 inches thick, 16 inches wide and 72 inches long. It comes in two finishes: walnut and bleached walnut.

#### NEW HYDRO-CRANE

AB9710

A simple high pressure hydraulic system operates the new Hydro-Crane being produced by the Milwaukee Hydraulics Corp., P.O. Box 2612, Milwaukee 14, Wis. Outstanding features of the crane include hydraulically operated outriggers which move out and down by fingertip control; hydraulically operated telescopic boom which extends or contracts under power for



work in close quarters, under wires, or into a box car or window; and an hydraulically operated clamshell bucket which when used with the telescopic boom is particularly useful for small excavations. Model H2 illustrated is currently available mounted on 1 1/2 ton International, Chevrolet, or Ford truck. It has a rated 1/4 yard or 2 ton capacity.

#### ALUMINUM UTILITY SHEET

AB9722

An aluminum utility sheet has been perfected at the Spokane rolling mills of The Permanente Metals Corp., Kaiser Bldg., Oakland 12, Calif. Designed for many uses, the sheet is particularly adaptable to residential, farm, and industrial applications where bending, lock seam joining, light weight, non-rusting characteristics and ease of handling are desirable. The first of its kind ever offered sheet metal fabricators by the aluminum industry, this general purpose sheet may be fabricated with the regular equipment on hand in any sheet metal shop.

#### SASH BALANCE WEATHERSTRIP PACKAGE

AB9721

Hettinger's Triple Seal combination sash balances and bronze weatherstripping are now packaged in retail tubes and labeled in modular glass sizes for 1 3/8 inch standard double-hung window sash. The hemmed edge weatherstripping is manufactured from corrosion-proof spring bronze and has rust-proof carbon steel coil springs. Triple-Seal is especially useful in old houses where the strip covers the pulley holes and eliminates the replacement of cords.



*speed remodeling with*  
**ARMSTRONG'S MONOWALL**

Kitchens and bathrooms can be made sparkling new in a hurry when they're modernized with Armstrong's Monowall.® There's nothing to dry or set—as soon as Monowall is in place, the room is ready for use. And Monowall is economical to install. The big panels go up fast, right over old plaster or other wall surfaces.

This decorative wall and ceiling material has a base of tempered wood-fiber hardboard, coated with multiple layers of durable lacquer. The finish won't crack, chip, or peel from heat or cold, and moisture doesn't harm it. Monowall withstands hard wear because the lacquer is a uniform thickness all over. It's wonderfully easy to clean, too. Score

lines have no dirt-catching "whiskers," and a damp cloth wipes fingerprints quickly from the smooth surface.

In addition to the streamline-design shown, Monowall is available in tile patterns and plains in a variety of popular colors. The 4' wide panels come in lengths up to 12', so walls can be installed with a minimum of joints.

Monowall can be used as effectively in new construction as for remodeling. Wherever plans call for a surface that will give practical service, yet stay bright and beautiful, recommend Monowall. For free literature, write Armstrong Cork Company, Building Materials Division, 1609 Lincoln Street, Lancaster, Pennsylvania.

TEMLOK IS A REGISTERED TRADE-MARK.

## ARMSTRONG'S BUILDING MATERIALS

TEMLOK • INSULATING WOOL • MONOWALL • HARDBOARDS • INSULATED SIDING

# Give Building Owners

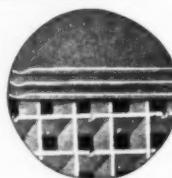


# PAINE REZO DOORS

## You Can't Give Them More



U.S. Pat. 1,887,814. The exclusive interlocking grid core within the Rezo door allows constant air circulation, adds extra strength, and provides greater rigidity.



WHEN you're building apartments under today's conditions, it's high time to get down to cases . . . time to give your building owners the basic dollar values they want and need to come out right on their investment. Then give them initial low cost of installation that registers on their pocketbooks—clean, exact-size flush doors that are quickly installed and are painted or stained in record time. Give them freedom from future trouble and maintenance expense with doors whose patented air-cell features provide the greatest dimensional stability on the market. Give them doors that are beautiful and dependable, doors that will be a lasting credit to your name—as proved by over 2,000,000 existing installations. Yes—give them 1 3/4" Paine Rezo doors . . . you can't give them more.

Write today for factual, contractor's bulletin.

Manufactured by the

## PAINE LUMBER CO., Ltd.

Oshkosh  
Wisconsin

ESTABLISHED 1853

(Continued from page 124)

industry-wide basis. There is no compulsion one way or the other.

**Q.: When do I start negotiating on a new contract?**

**A.:** At least 60 days before your contract is due to expire. You must notify the union that you want to either renew or modify your agreement.

**Q.: Must I initiate this action?**

**A.:** No, the union can do likewise.

**Q.: What then?**

**A.:** You and the union must start negotiations. Within 30 days if no agreement has been reached, the new Federal Mediation Service and your state Mediation Board must be notified that a dispute exists.

**Q.: What follows?**

**A.:** You continue negotiations. The union is not permitted to call a strike for 60 days after the Mediation Service has been notified of the dispute. In other words, a status quo.

Once the Mediation Service has been notified, it may step in and offer a formula for settlement. Neither you nor the union need accept its solution.

**Q.: How long must the union wait until it can legally strike?**

(Continued to page 154)

## Take Our Tip

If you want to keep abreast of new developments in building you should have a reference shelf of standard handbooks and new books to consult. No one can keep all this information in his head or in private note books. The information on current developments in the trade press is fragmentary. It is brought together in books after being tested on the job and found worthy of permanent record. The information is stripped down to basic facts and in many instances clearly illustrated or compared with other data in tabular form.

To build up a small reference shelf of building books you need to know what books are available on subjects of particular interest, what they contain, the year of publication or last revision, and their current prices. You will need some good plan books, a few estimating books and forms, and some carpentry and building details books, among others. We have three Recommended Lists of books on these subjects which are free on request. Take our tip and send for them today.

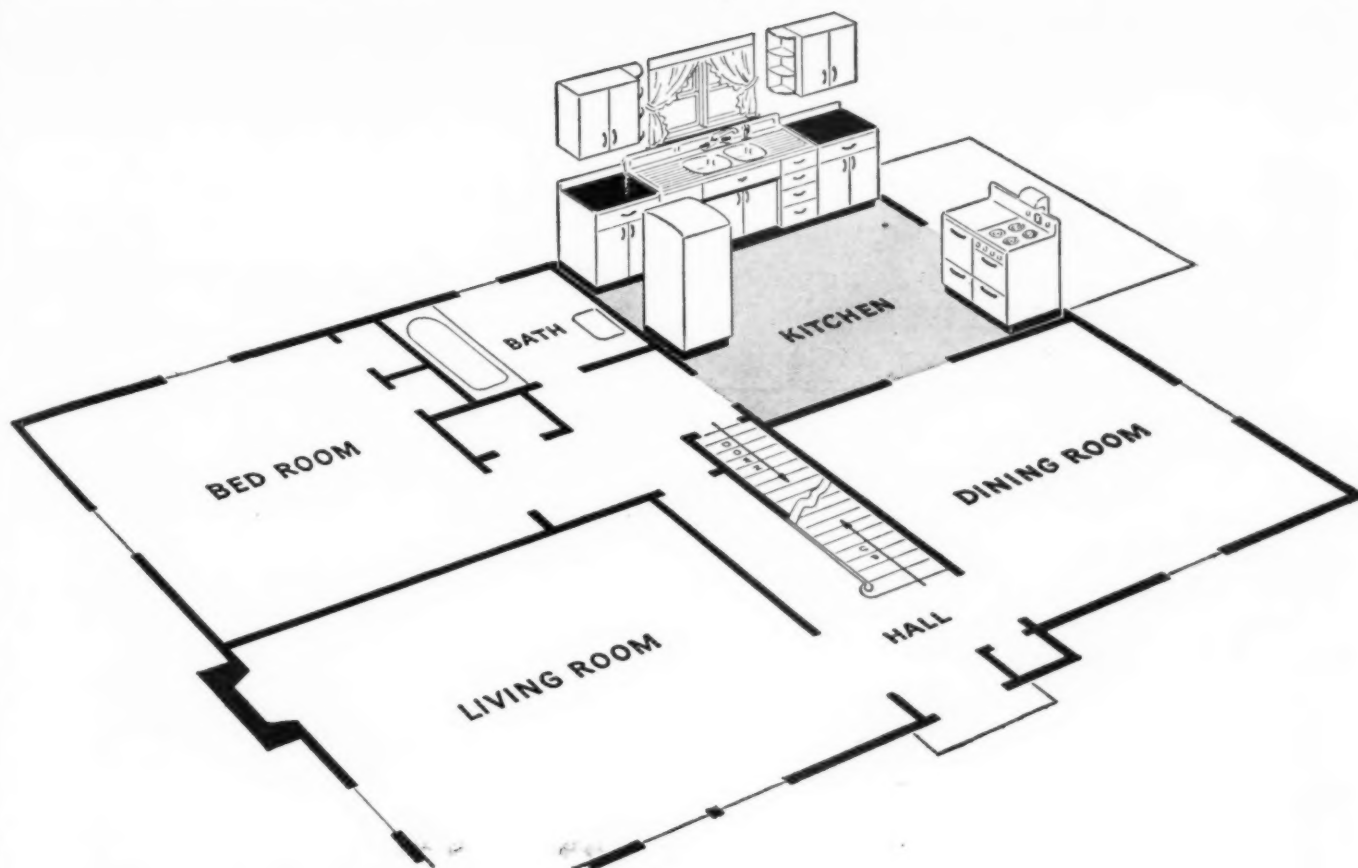
Book Service Department

### AMERICAN BUILDER

30 Church Street

New York 7, N. Y.





## Easy handling...

## another big feature of Youngstown Kitchens

WITH construction time and labor costs major items in your budget, consider this—

Youngstown cabinet sinks and wall and base cabinets can be handled as easily as a pre-fitted door. Units arrive fully finished with sub-bases and hardware in place. One good workman can install the average Youngstown Kitchen in a matter of hours... complete... without puttying, painting, or fitting.

A saving? Yes! But smooth handling is only *one* Youngstown advantage (see panel). For these sturdy luxurious units are *standardized* — *precision-built* and *mass produced* to the highest speci-

cations in white-enameled steel. Sink tops are finest acid-resisting porcelain enamel. All equipment harmonizes with any range or refrigerator in design and finish.

Youngstown Kitchen arrangements can be selected from a wide range of suggestions designed with both your problems and your buyers' needs in mind.

A complete Youngstown builder's service in or near your community is assured by 60 experienced Mullins' Field Men and 7500 trained Youngstown dealers throughout the U.S.A. For name of your nearest distributor or field man, just write—

**MULLINS MANUFACTURING CORPORATION**

WARREN, OHIO

Porcelain Enameled Products, Large Pressed Metal Parts,  
Design Engineering Service



*Youngstown Kitchens*

BY MULLINS

### Other Youngstown features

•  
Low cost

•  
Wide selection

•  
Easy Installation

•  
Modern styling

•  
Top quality

•  
Sold everywhere



**EVERY  
INCH  
A  
BETTER  
TOOL**

● From toe to heel, bottom is machined smooth and true. Handle and knob are designed and placed for perfect balance. "Composite" Steel Cutter stays sharp longer. Finest cutter adjustments are easily made. Design of Cutter Cap, Lever and Frog assures a smooth working chatter-proof plane. Get a Stanley Plane—the choice of skilled woodworkers for 90 years. Stanley Tools, 133 Elm Street, New Britain, Connecticut.

THE TOOL BOX OF THE WORLD

**STANLEY**

Trade Mark

HARDWARE · HAND TOOLS · ELECTRIC TOOLS

(Continued from page 152)

A.: It cannot legally strike until 60 days have elapsed between the date of notification to the Mediation Service and the day of the walkout. In other words, there may be as much as a 90-day lapse.

NOTE: This figure will not always work out to a 90-day cooling off period. Here's why: The unions will, in practice, notify the Mediation Service that a dispute exists just as soon as it receives notification from you that you want to modify your agreement. This takes place 60 days before actual expiration. Instead of waiting for 30 days of negotiations to elapse, the union will maintain that a dispute exists by the very fact of your notification to it. It will so inform the Mediation Service in order to be in a position to strike 60 days later—or at the expiration of the contract.

Q.: What if the union calls a strike before the 60-day cooling off period?

A.: By doing so the union will jeopardize the jobs of the workers. The new law provides that employees who violate the "no strike" regulations will lose their protection under the Act and can be replaced by the employer.

(Continued to page 156)



ALL THE EXCITEMENT of the Old West—against a background of modern luxury at the Last Frontier. Name-band dancing in the Ramona Room... carefree hours in the Gay Nineties Bar... 21 Club Casino.

The Early West in Modern Splendor

HOTEL

**LAST FRONTIER**

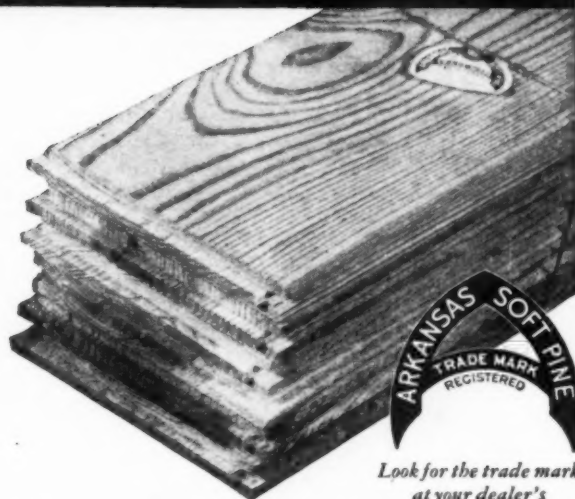
LAS VEGAS, NEVADA

# A BETTER SHEATHING JOB IN $\frac{1}{3}$ LESS TIME!

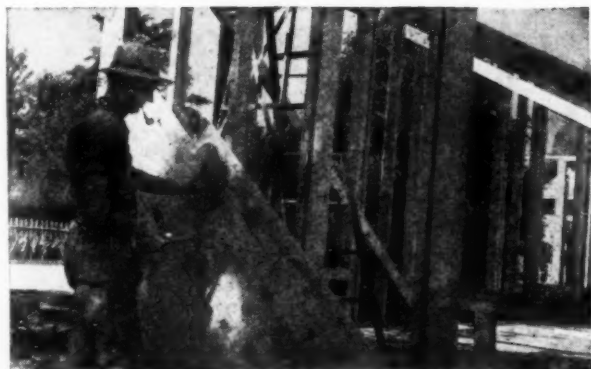
...That's what you get with

## ARKANSAS SOFT PINE

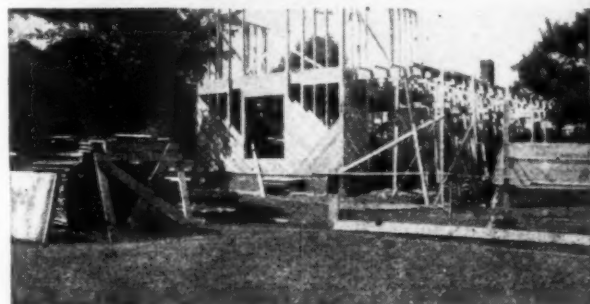
### Center and End-Matched Sheathing



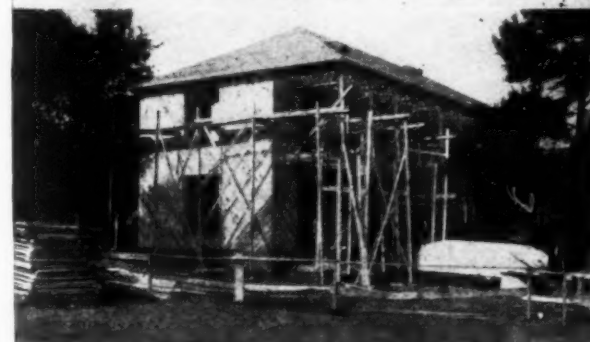
Look for the trade mark  
at your dealer's



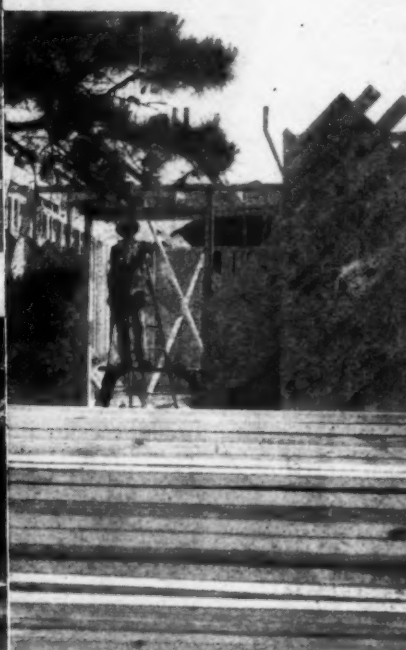
Goes on fast... end joints eliminate trimming at  
stud and joist centers.



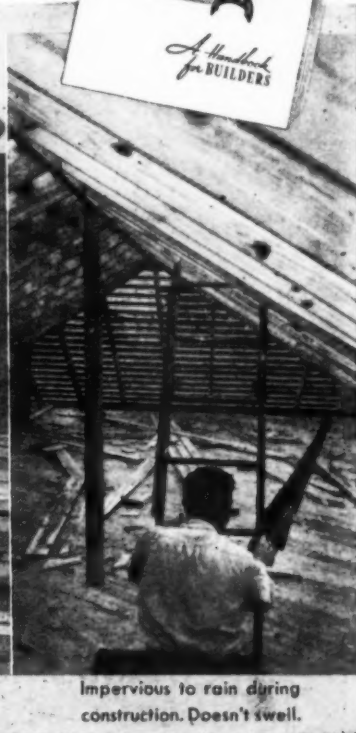
Gives extra reinforcement at frame corners... soft  
texture nails without splitting... works easily.



Matching prevents air leakage under exterior  
window and door trim.



Facilitates use of short  
lengths in narrow spaces.



Impervious to rain during  
construction. Doesn't swell.

Center and end-matched sheathing shows you in these jobs just one of the many better-profit values in Arkansas Soft Pine. New improvements like this, along with extra soft texture, light weight and bright color, qualify Arkansas Soft Pine as the leading all-purpose framing and finishing lumber for every item from foundation to Satin-like Interior Trim.

Send for this **FREE HANDBOOK**. It tells you how to specify and finish Arkansas Soft Pine; includes typical finish and moulding patterns, framing details, stress tables, and other construction data.

**ARKANSAS SOFT PINE BUREAU**  
988 Boyle Bldg., Little Rock, Arkansas





## VAPOR Condensation Lots of Fun on Windows



## Lots of Trouble Within Walls

Harmless on windows, moisture condensation plays havoc within walls. Uncontrolled condensation can make insulation soggy and inefficient, cause paint peeling, wall stains — even structure rot. A sure way to prevent these costly evils is with a separate vapor barrier. Architects everywhere specify the standard — Bird Neponset Black Vapor Barrier. Applied on the warm side of insulation, Bird Neponset Black repels vapor, keeps insulation at peak efficiency, ends other condensation evils. Only about \$20 buys life-long protection for a \$10,000 building. See Sweet's Architectural file, 9b-2. For sample, write Bird & Son, inc., 173 Washington St., East Walpole, Mass.



## BIRD NEPONSET BLACK VAPOR BARRIER

BIRD & SON, inc., E. WALPOLE, MASS.  
CHICAGO NEW YORK SHREVEPORT

(Continued from page 154)

**Q.:** Does the employer have to take them back if the union calls off the walkout or decides to come to terms?

**A.:** Not if the strike was in violation of the new Act. But he may take them back if he wishes.

**Q.:** If the union waits 60 days and then goes out on strike, can I refuse to rehire the strikers after it's all over?

**A.:** In an economic strike such as this, you must not discriminate against workers because they went out on strike. If they have not been replaced and there is work, you must rehire them.

**Q.:** Suppose at the expiration of my contract I feel that the union no longer has a majority status among my employees?

**A.:** A very pertinent question, for the "decertification" aspects of the new law are likely to be among the mostly hotly contested provisions of the entire Act.

If you feel that the union no longer represents a majority, you can petition the NLRB to look into the matter. You can do so even if there is only one union involved. Previously, the employer had to keep

(Continued to page 158)



No weights—no cords—no mortising. Just drill one hole, that's all. Nothing could be quicker or simpler.

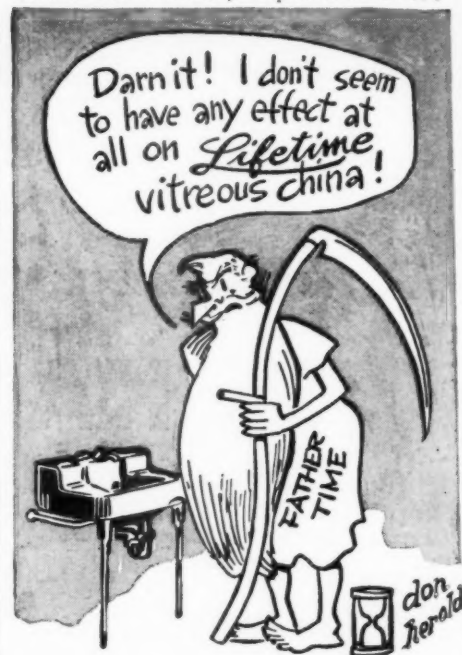
Vikre New Economy Sash Holders help keep construction costs down... save you dollars per opening and time on the job.

Tested and proved for years, Vikre Sash Holders are easily installed... and once adjusted require no more attention. Use them wherever there are windows and for windows everywhere.

Vikre New Economy Sash Holders are available in quantity through your building supply dealer. For full details write:

**J. N. VIKRE CO.**

3016 14th Ave. S. • Minneapolis, Minn.



Yes, Lifetime Vitreous China is a "pain" to Father Time, but a lifetime pleasure for the homeowner. The years do not dim its lasting lustre nor diminish its ease of cleaning. Your prospects will appreciate the fact that Universal Lifetime Vitreous China Plumbing Ware lightens their work and brightens the homes you build.

**UNIVERSAL SANITARY MFG. CO.**  
New Castle, Pa.

Camden Pottery Div.  
Camden, N. J.

Pacific Pottery Div.  
Redlands, Cal.

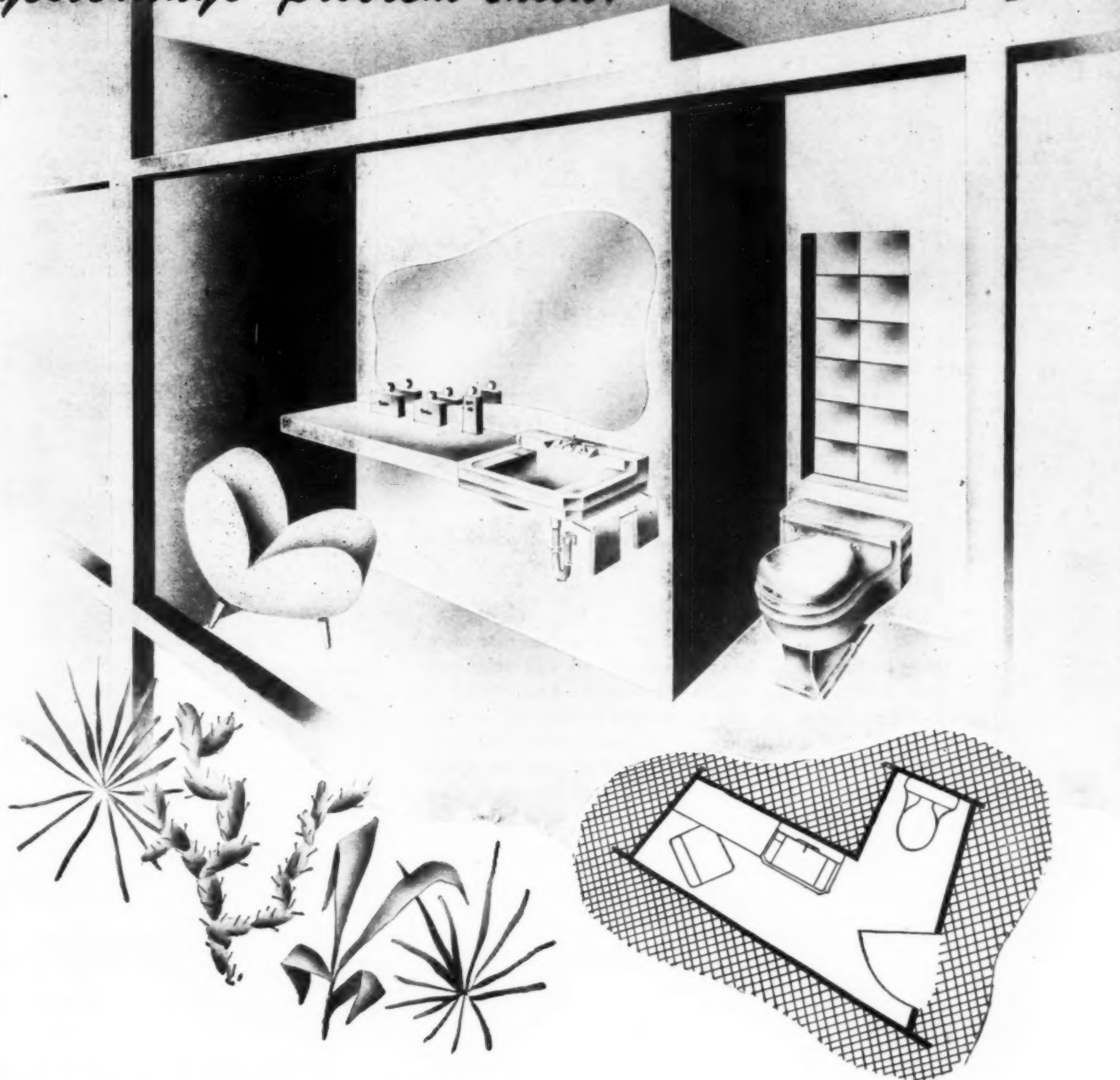


18A

**UNIVERSAL**  
*Lifetime*

**VITREOUS CHINA PLUMBING FIXTURES**

*And THIS was  
yesterday's "problem child!"*



Ingenious use of compactly designed Case vitreous china plumbing fixtures turns "problem" space into a powder room—one of the most convenient rooms in a house and one valued highly by owners and buyers. With its 19" overall height, the one-piece Case T/N\* water closet offers the flexibility of placement required. This is a quiet free-standing fixture with positive *non-overflow*. The Cosmette Lavatory, in overall size as small as 20" x 13½", is a perfect companion to the T/N\*. Wall hung or with chrome legs, it features an extra large basin, handy shelf space and concealed front overflow. Case plumbing fixtures are distributed nationally—see your Classified Telephone Directory or write to W. A. Case & Son Mfg. Co., Buffalo 3, N. Y. Founded 1853.

\* PATENTED

**Case** *Vitreous China Plumbing Fixtures*

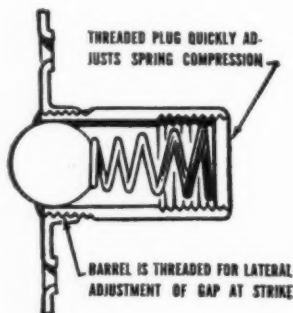


## This Rite Ball Latch Can't Jam!

**A** Steel ball makes this latch jam-proof and assists its door to always open or close in an easy, positive manner. A coil spring behind the ball constantly exerts pressure which may be changed to meet varying conditions through a clever feature illustrated in the half-section diagram below . . . adjustment of the strike-point of the ball is also possible. This latch is heavy enough for use on communicating, and service doors with dummy trim and on top of louvre doors . . . a smaller size is recommended for use on wardrobes and cabinets. Installation is simple and easy . . . correct distance between latch and strike is easily maintained . . . it's the most satisfactory latch we have seen. Choice of nine standard finishes is yours . . . delivery is immediate. Add Rite Ball Latches to your line today . . . send for Catalog Sheet No. 200.

**Patented Design**—Features illustrated reveal the success of the Rite Ball Latch. Note the ball-bearing action . . . two-point adjustment (spring compression of small No. 434 latch is not adjustable). Strike furnished serves as template for locating latch on jamb easily and quickly.

No. 234 . . . Face Measure  $2\frac{1}{8}" \times 1"$   
No. 434 . . . Face Measure  $1\frac{1}{2}" \times \frac{3}{4}"$



QUALITY HARDWARE FOR



NEARLY HALF A CENTURY

# ADAMS-RITE MANUFACTURING CO.

540 WEST CHEVY CHASE DRIVE, GLENDALE 4, CALIFORNIA, U. S. A.

(Continued from page 156)

"mum" about decertification unless there were at least two unions fighting it out for representation. Now you can take the initiative and question the union's popularity when the contract comes up for renewal.

This procedure calls for caution. What will happen in practice—the union will immediately file a charge of "refusal to bargain" which is an unfair labor practice. The union may even go out on strike. If the NLRB subsequently finds that there was no basis in fact for your decertification move, then it may hit you with an unfair labor practice which would automatically make the strike "legal" and the employees entitled to reinstatement with back pay.

**Q.: Can the employees themselves petition the NLRB to make a check of the union majority status?**

**A.:** They sure can, provided a reasonable number (30-35%) request it.

This is the safer procedure. If the union goes out on strike because some employees have petitioned the Board, then the employer cannot possibly be held guilty of an unfair labor practice. The walkout then becomes an economic one and the workers who participate are on their

(Continued to page 160)

*There Are Tremendous  
Merchandising Possibilities*

*In a*

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Home Offices—Dallas, Texas

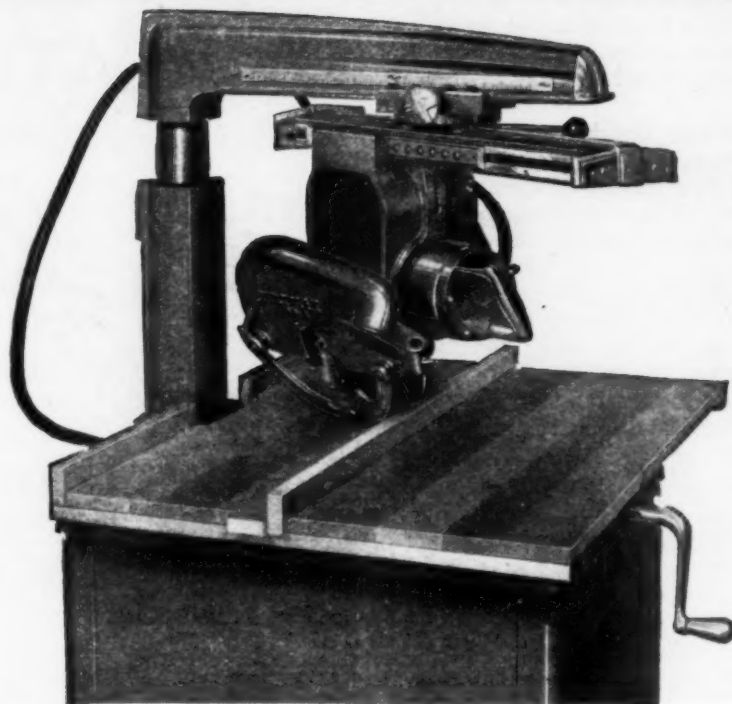
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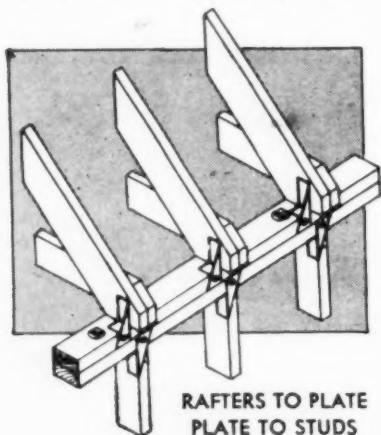
**MULTIPLEX**  
*Radial-Arm Saws*

**DRILL PRESS ATTACHMENT:** The MULTIPLEX models 30A and 40A can also be quickly and easily converted into a high speed ball bearing radial arm drill press attached to, and driven by, the saw motor. Valuable also for shaping, carving, routing, circle routing, sanding, tenoning, planing and many other operations.



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Company .....

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State .....

AB

(Continued from page 158)

own and can be replaced—And even if taken back by the employer, are not entitled to back pay. Also, while out on strike, the workers cannot take part in any decertification election.

**Q.:** If I feel that the union doesn't represent a majority, can I go ahead and make my view known to my employees?

**A.:** The new law has greatly expanded the employer's right of free speech. The regulations specifically states that: "The expressing of any views, arguments or opinion, or the dissemination thereof, whether in written, printed, graphic or visual form, shall not constitute or be evidence of an unfair labor practice under any of the provisions of this Act if such expression contains no threat of reprisal or force or promise of benefit."

**Q.:** If an election is held and the union is defeated, how soon after that can the union demand another election?

**A.:** Not before a year has elapsed.

**Q.:** What if another union makes a bid for recognition on the heels of the defeat of the previous labor outfit?

(Continued to page 162)



**Eliminate HANDSANDING!**

**UP TO 75% SAVINGS** in time finishing or refinishing cabinets, doors, wood trim, stair treads, etc. A rugged, fast finishing sander for CURVED or flat, WET or dry work. Strate-line, back and forth action cuts no swirls, laps, stutters or gouges.

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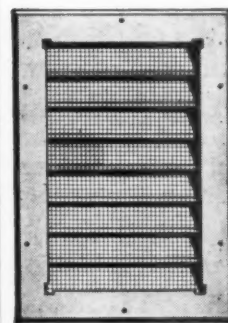
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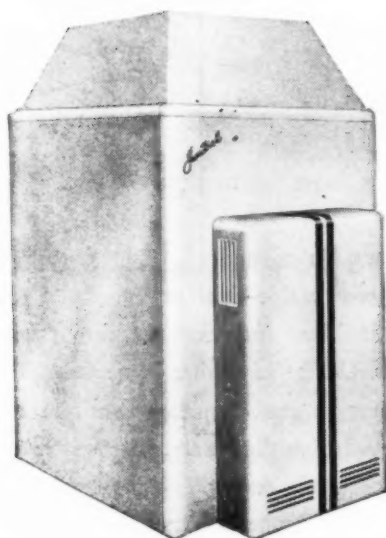
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**THE NEW, IMPROVED, GAS-FIRED**

# Janitrol Gravity Furnace

**IS THE MOST PRACTICAL**



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#### Versatile for Many Floor Plans

Especially suited to small basements, this new Janitrol takes little floor area, eliminates the need of space for fuel storage. It's good looking too, with attractive gray casing and neatly rounded corners... looks as modern as its design.

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The Janitrol Gravity Furnace is economical... to install... to use. It gives a gentle, continuous flow of warm air to each room, without blowers or motors. Operation is fully automatic, furnace requires no attention... simplicity of design and

unique construction means low installation and maintenance costs.

**IMPORTANT TO REMEMBER!** You do not sacrifice quality when you install Janitrol... it's a product backed by 35 years of successful experience, devoted exclusively to the development of the finest gas heating equipment.

Installations are made by factory trained Janitrol dealers, fully qualified to recommend, lay out and service the most practical heating system for any particular type of new construction or remodeling.

Your Janitrol Dealer can show you the way to give your clients all the benefits of modern heating the most economical way.

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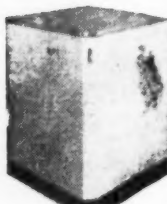
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## 3 TANKS

Designed to give the architect and builder a greater flexibility in planning the modern home.



The Square TABL-TOP Tank fits into the counter planning of the kitchen. Its colorful West-plax top assures an acid and stain proof surface, blending into counter and kitchen planning and layout.



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ALL TABL-TOP TANKS are insulated with fibre glass . . . Dependable, using Cam-Stat thermostats and Trent heating elements . . . Rugged tanks of heavy 3/8" double-dipped galvanized steel . . . baked white enamel casing . . . Listed and approved by the Underwriters Laboratories . . . 40 gal. capacity.

**ABCO**  
MANUFACTURING CO., INC.  
509 WESTLAKE NORTH  
SEATTLE 9, WASHINGTON

(Continued from page 160)

A.: It too will have to wait for 1 year.

Q.: What if a rival union claims jurisdiction while I have a contract with another union?

A.: The Board won't order an election until expiration time.

Q.: What if my employees are out on strike and the NLRB directs an election to determine the bargaining agent?

A.: It all depends on whether the strike has been called for economic reasons such as wages, hours, working conditions, or because of an unfair labor practice on your part.

NOTE: Under the new set-up economic strikers are not permitted to vote, but employees out on strike over an unfair labor practice charge are still eligible.

The employer will have to be very careful to avoid giving the union any basis for an unfair labor practice charge. From now on "economic" strikes as such, will be very few indeed. Unions will probably call every strike an "unfair labor practice strike" and let the NLRB make the final determination.

NOTE: Under the new Act, however, it is not as easy to prove unfair

(Continued to page 164)

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By HARRY PARKER

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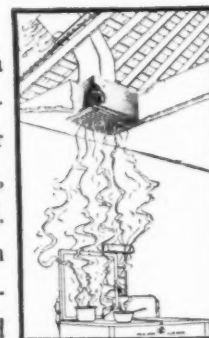
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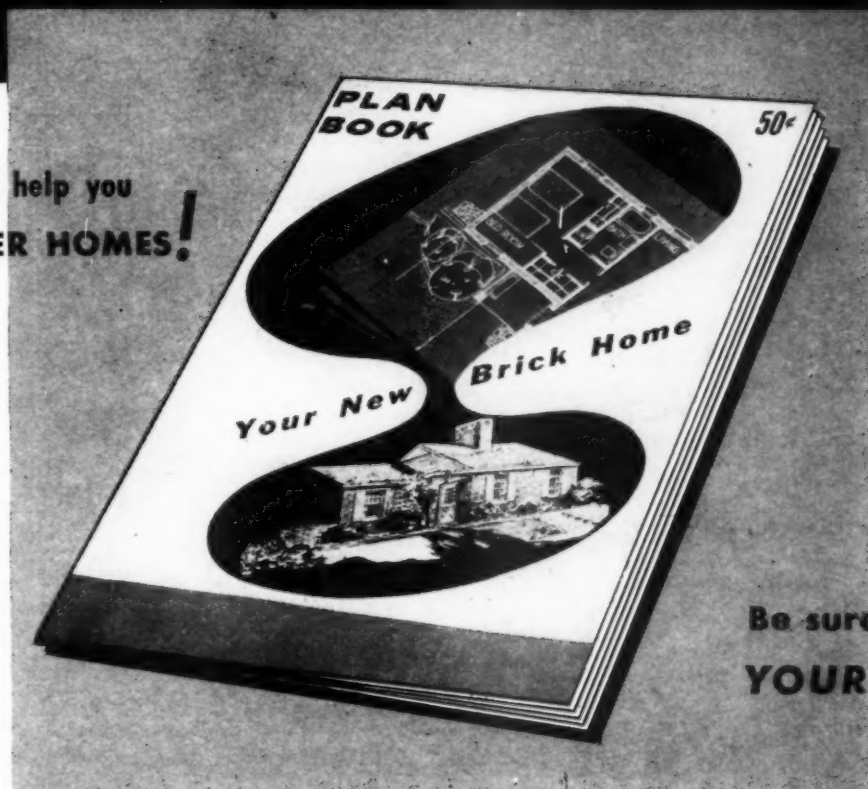
Effective in any small room—in old or new homes. Clipper Blowers are now carried in stock by electric supply dealers from coast to coast. Write us for the name of your nearest dealer and for the special bulletin which explains how simply the Trade-Wind Clipper Blower can be installed in old as well as new houses.

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(Continued from page 162)

labor practices as it was under the standards of the Wagner Act. Evidence of unfair labor practices must be more than "substantial."

This will cut two ways—it will be equally difficult for employers to make unfair labor practices against unions stick.

**Q.: What's this business of craft unions in the new Act?**

**A.:** A very important part of the law, and you should know how it works. Any group of workers in a single skill (machinists, tool and die makers, etc.) can break away from the production units and be represented by a separate unit.

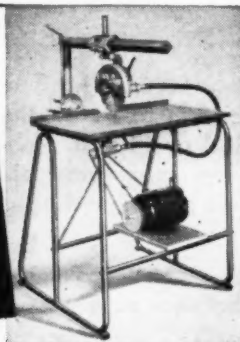
**Q.: How can they do that?**

**A.:** A number of them can petition the NLRB that they want a separate unit. The NLRB will then conduct a vote and ask the men whether they want their own unit, or they want to continue to team up with the production workers.

**Q.: Does this mean that instead of negotiating with one union as I do now, I may have to deal with several?**

**A.:** That's right. This section in the new law will be a boon to many A. F. of L. unions. A considerable  
(Continued to page 166)

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JOBS  
AND  
MORE  
WITH**



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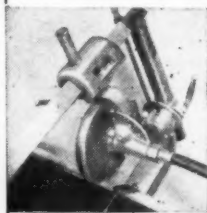
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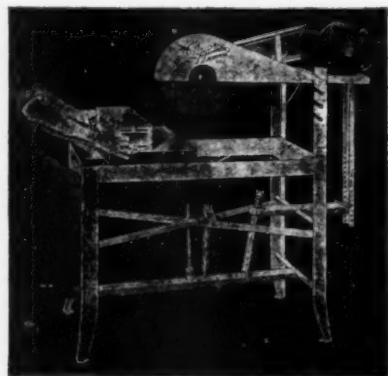


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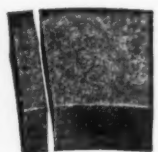
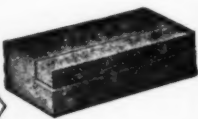
The new Clipper Multiple Cutting Principle makes possible faster cutting of every masonry material regardless of hardness.

Here are a few typical examples of the speed and accuracy with which concrete products and fire brick can be cut.



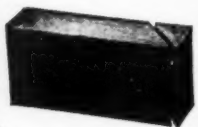
This concrete block, converted into a special size, was cut completely in two in 19 seconds.

One of the many intricate cuts performed on first quality clay brick for heat treating furnaces—made in 8 sec.



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(Continued from page 164)

amount of raiding will develop as the craft unions begin to demand representation for small groups of skilled men in your plant.

Watch this section carefully for its effect on your seniority set-up. If you have plant-wide seniority—you may have to change it to occupational or departmental seniority because if craft men break into separate units, they will want separate seniority set-ups.

**Q.: Do all crafts have to be broken up into separate units?**

**A.:** Not at all. You can go along as you have with the production workers' union representing the whole shop. Only if the men in the craft branches begin to "beef" and take direct action—or another union claims jurisdiction—does the issue come up.

**Q.: Does the same thing hold for plant guards?**

**A.:** No. It is forbidden for plant guards to belong to any union which houses any other workers. They must belong to a different union.

Look for the rise of a series of independent unions of plant guards. For the first few years organizing activity among this group may be

(Continued to page 168)



## OWNER MANAGEMENT

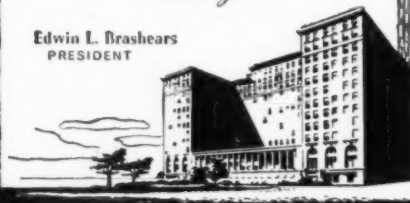
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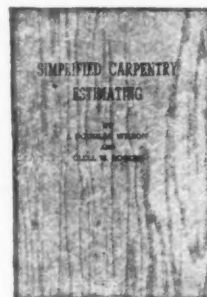
# SIMPLIFIED CARPENTRY ESTIMATING

By J. DOUGLAS WILSON

Coordinator, Apprentice Education,  
Carpentry and Cabinet Making Los  
Angeles City Schools Los Angeles,  
California

and CLELL M. ROGERS

Mathematics Instructor,  
Venice High School, Venice, California



A practical text on carpentry estimating, covering rough lumber, finish lumber and hardware, in which the parts of a house are analyzed under six main divisions. Material lists, short cut rules and tables supplement the text and guard against anything being overlooked in making up the final estimate. Valuable information is given for making labor time estimates.

While designed as a beginner's text the Third Edition is complete enough for the use of builders and lumber dealers. Simple arithmetical methods for accurate estimating, are given. Helpful tables that save much time in figuring and a full index make the book suitable for quick reference in the shop or on the job.

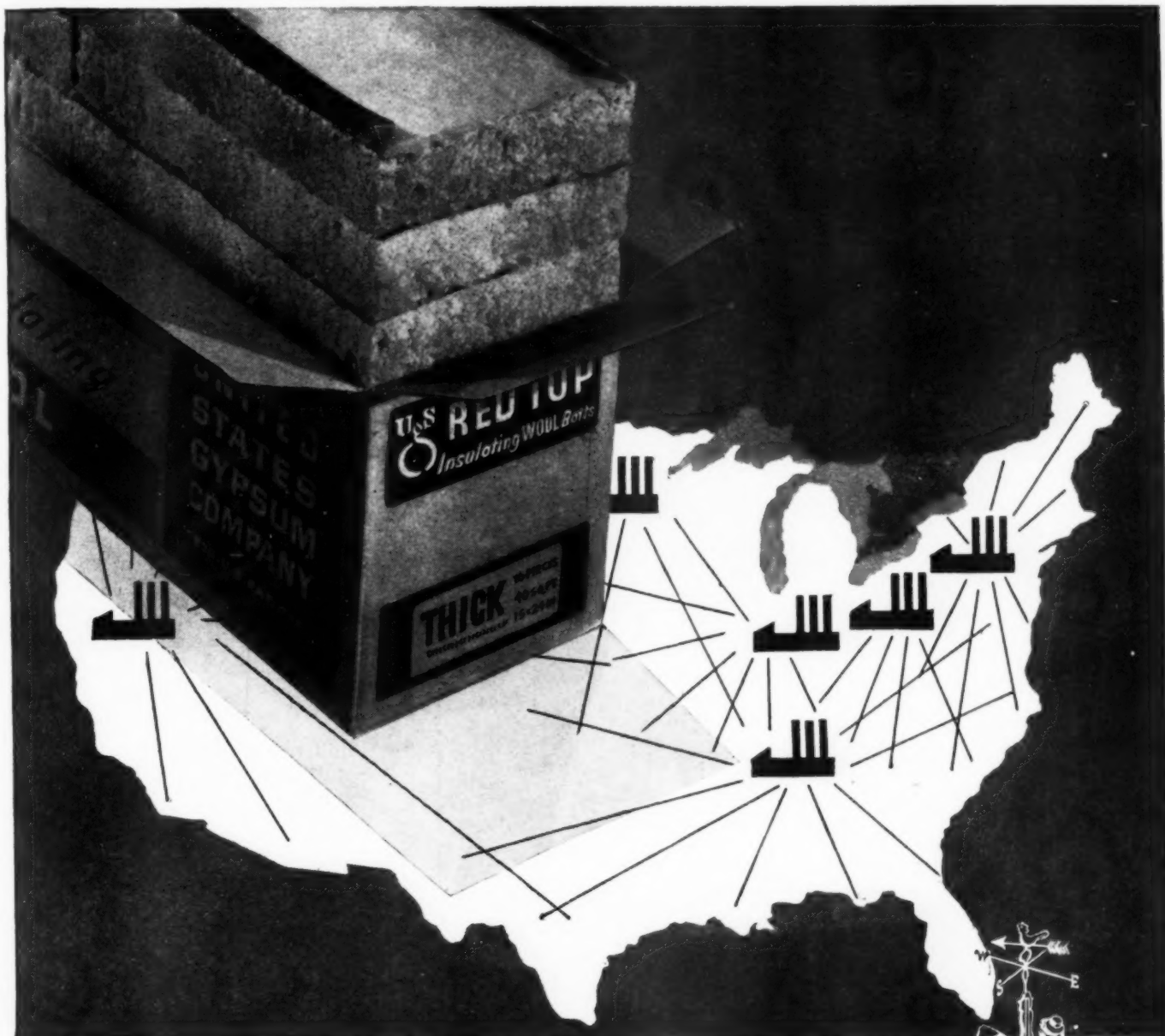
### Contents

Estimating Fundamentals. Foundation Material. Framing. Exterior Finish. Interior Finish. Hardware. Building Information. Estimating Short Cuts. Labor Hours per Unit of Work. Carpentry mensuration. Mathematical Reference Tables. A Guide to Home Planning. Index. 1947. 3rd. 288 pages, 123 illustrations, 60 tables, 5x7, \$3.00.

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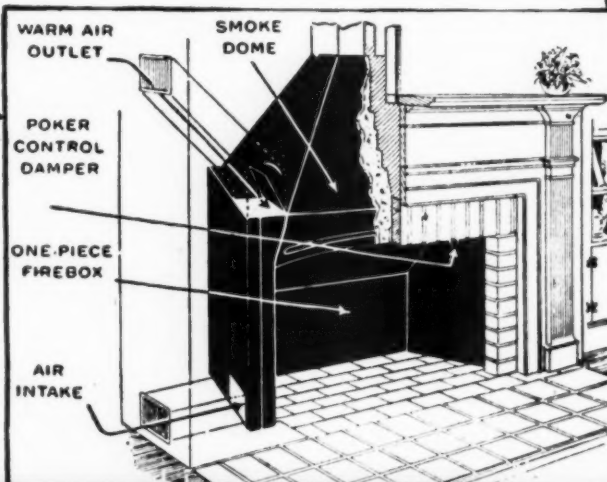
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(Continued from page 166)  
hectic as various outfits vie for plant guard loyalty.

**Q.:** How's the foreman situation to shape up under the new law?

**A.:** Foremen take on the strictly managerial hue from now on. They are covered by the Act.

**Q.:** Does that mean that I can ask all my foremen to quit the union as a condition of employment?

**A.:** It does.

**Q.:** In selecting new foremen can I tell them that they are not to join any union?

**A.:** You can.

**Q.:** Can I fire a foreman for joining a union?

**A.:** Yes.

**Q.:** What if I wish to maintain the status quo and let my foremen belong to the production workers' union as they do now?

**A.:** You can continue that practice if you wish. Many employers, as in the printing trades, will not upset that type of arrangement.

**Q.:** The union is down on one of my foremen for being outspoken against the union in the plant. What can the labor organization do about that?

**A.:** As long as your foremen are (Continued to page 180)



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GUN TACKER**  
Model CT 850

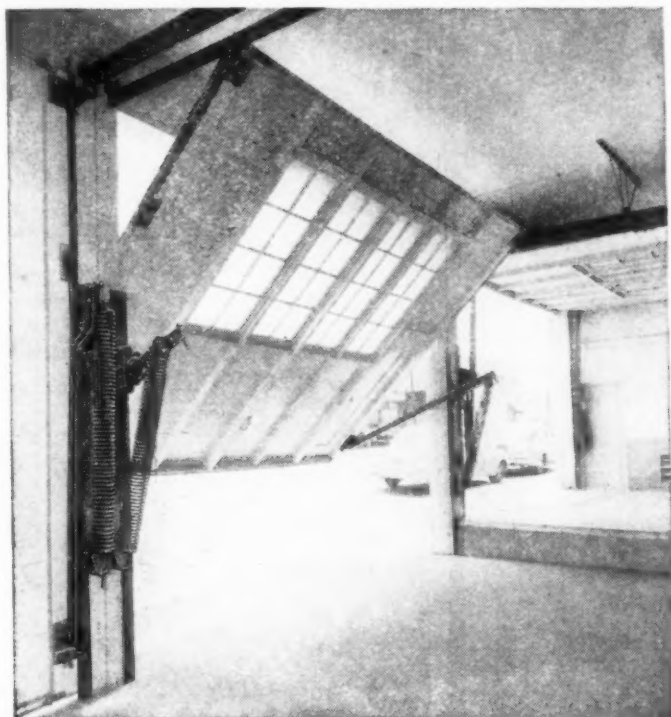
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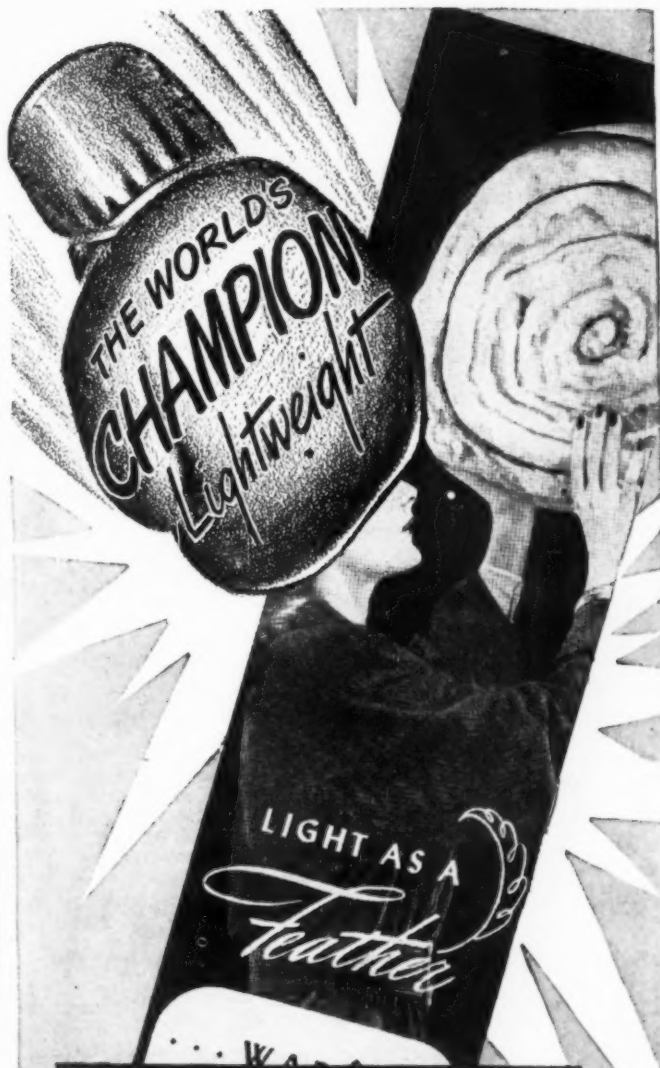
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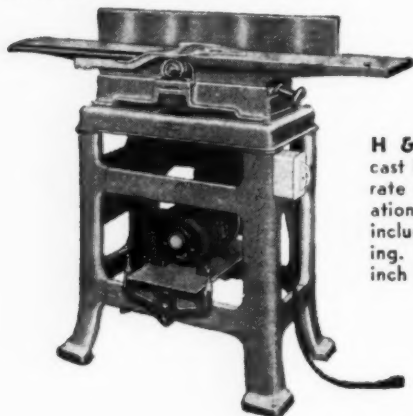
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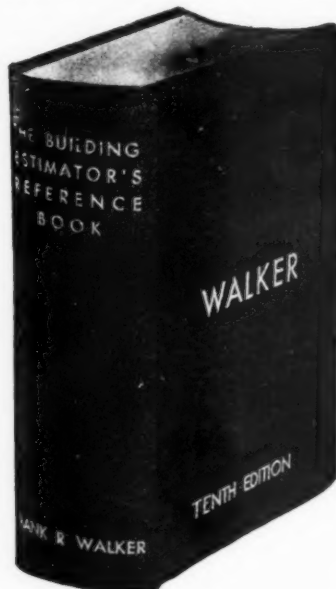


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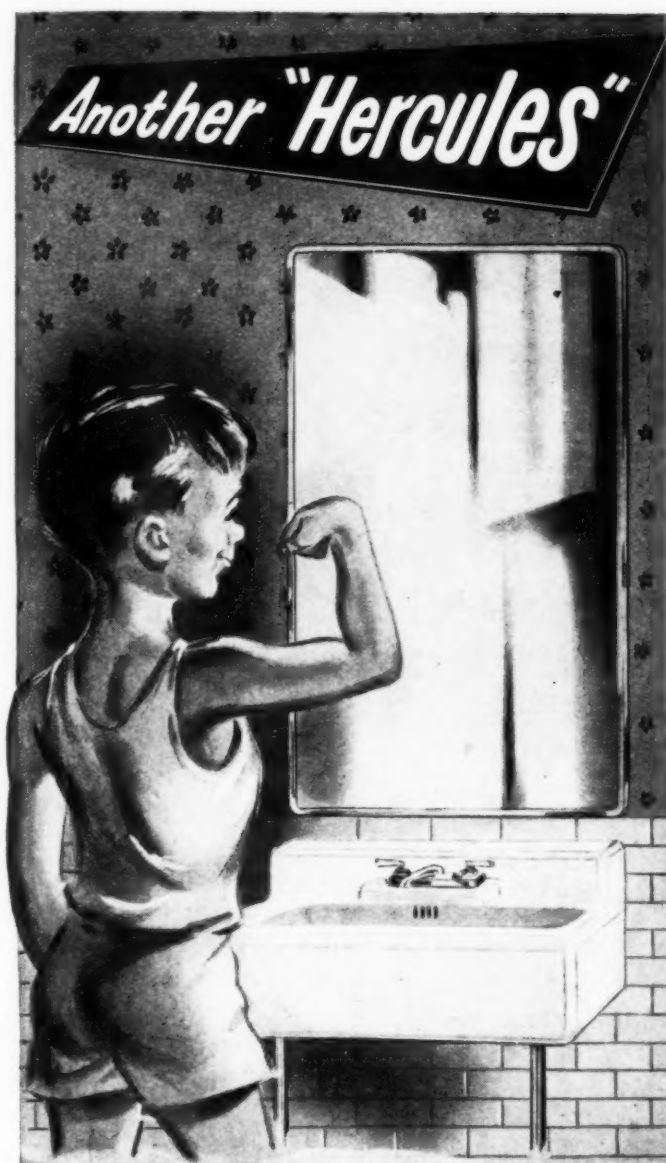
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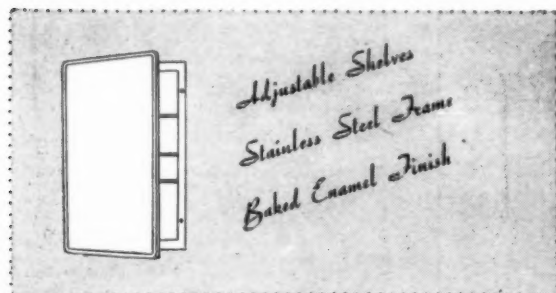
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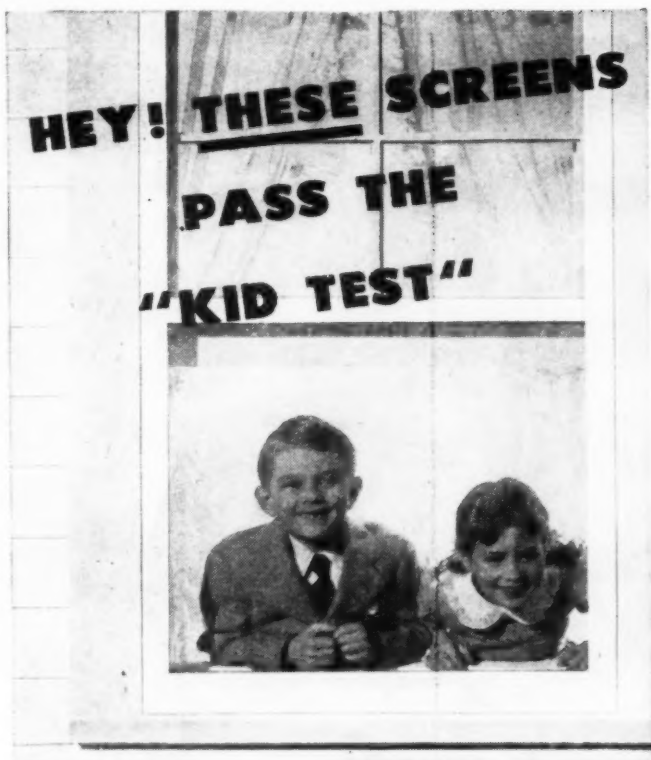
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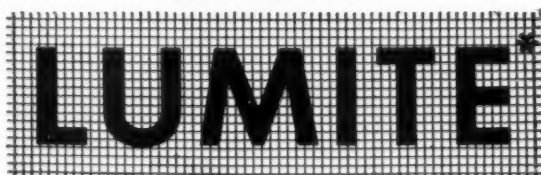
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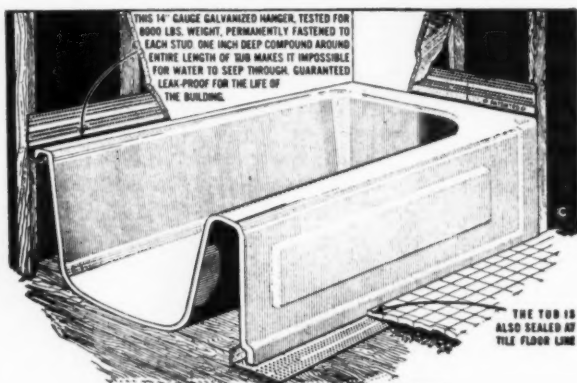


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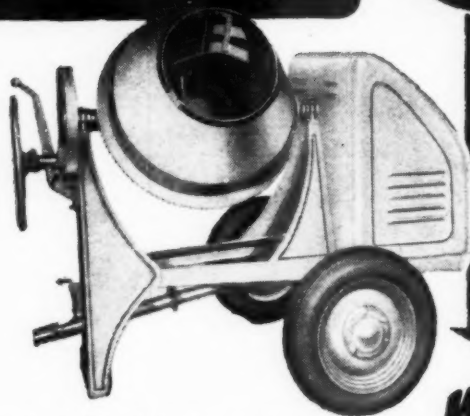
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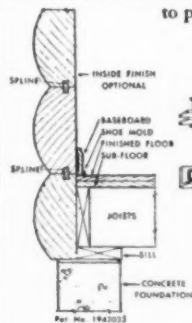
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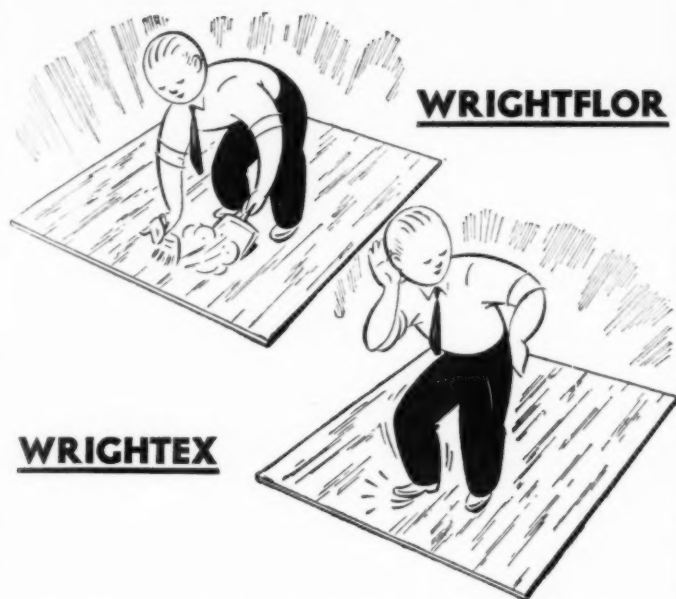
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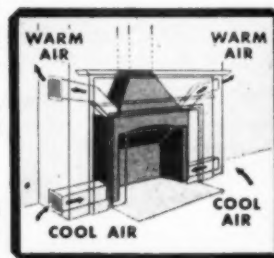


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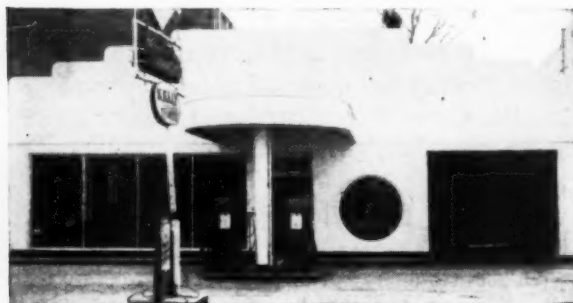
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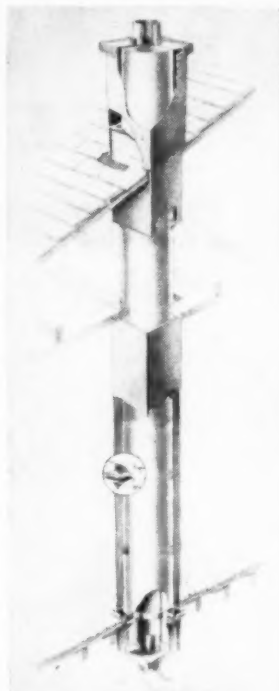
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RAILS are standard construction: 2' 8" high, 1" sq. posts, 1/2" square upright bars, 1 1/2" channel top with lamb's tongue finish. Painted black. Available in 3 designs shown below. Order from your dealer or write.

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**Logan STOK-RAILS**  
TRADE MARK

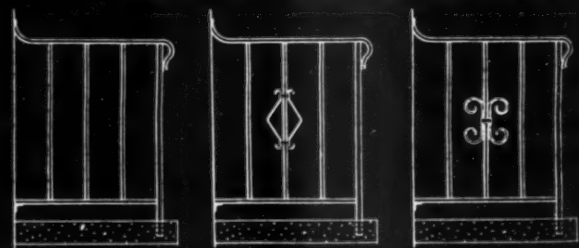
4'-2"

3'-8"

3'-2"

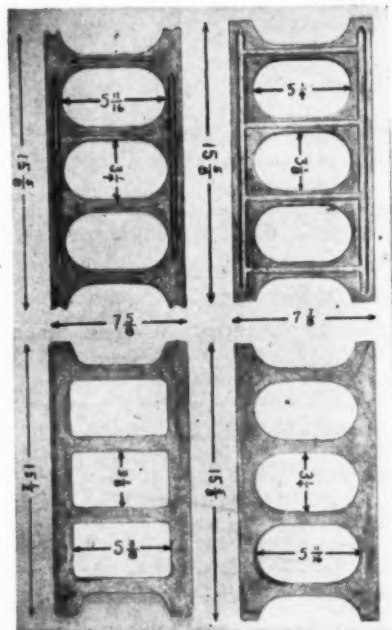
2'-8"

2'-2"





# PALLETS



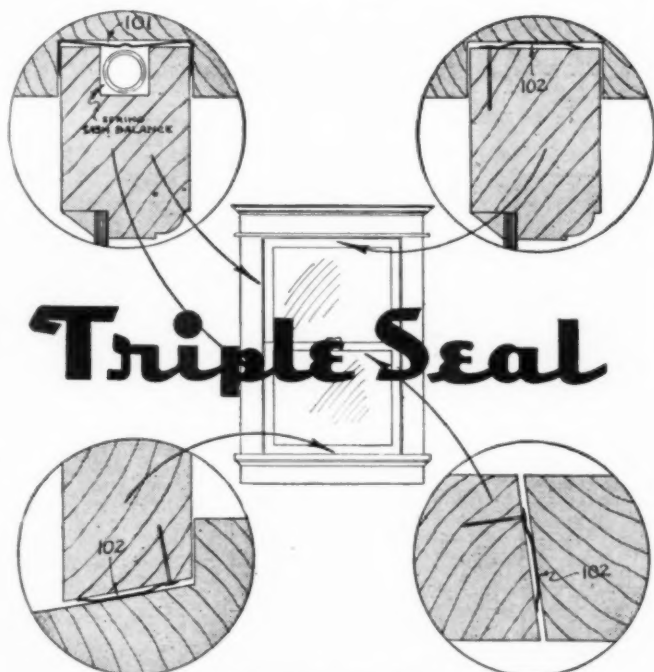
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- PROMPT deliveries are made on pallets in over 200 shapes and sizes.
- Deposit not required with orders of rated concerns; just mail simple drawing or sketch of pallet needed and order will be shipped within 1 to 10 days. 5% Discount allowed for cash with order.
- CORES — Oval or rectangular Aluminum cores for modernizing old machines are available for immediate delivery at \$45.00.
- WRITE TODAY for our 1947 Catalog and price list of Pallets, Machinery, Tools and Building Specialties.

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SASH BALANCES  
BRONZE WEATHERSTRIPS**

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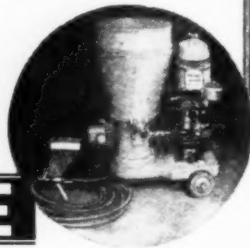
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## COLORCRETE



## 1947 Houses Are Basically Cheaper, Says Los Angeles Builder

THE 1947 factory worker is getting a better deal on housing now than he was in 1940 according to James H. McCarthy, vice-president of The McCarthy Company, builders, Los Angeles.

"In 1940 a factory worker had to work 8,846 hours in order to pay for a \$5,600 home," said McCarthy, "whereas now he works 7,179 hours to purchase a \$8,400 home of the same size and finish. This represents a clear savings of 1,667 man-hours of the worker's laboring time to pay for his home."

"Few people realize that despite price increases the new homes being built by our company do not cost as proportionally much more as does a new pair of shoes or canned goods off the grocer's shelf."

McCarthy's firm now has 68 homes under construction in the South Gate-Compton area, 61 in the Inglewood section, and 62 in Westchester.

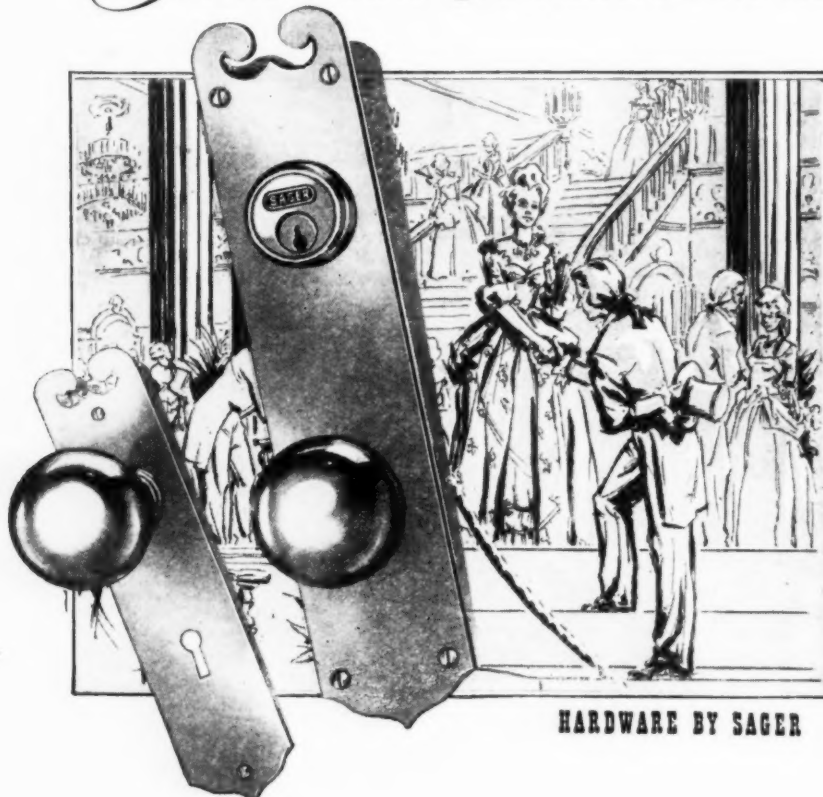
## Does It Pay to Work Harder?

THAT this question inevitably thrusts itself before every financially successful business and professional man today is clearly indicated by the accompanying table prepared by Dr. Willford I. King, author of "Wealth and Income of the People of the U.S." and at present lecturer on economics at N.Y.U. and chairman of the Committee of Constitutional Government. It reveals how, as income is added, Federal taxes climb, and how the fraction of the added receipts retained by the individual dwindles as income expands.

"For the man who earns \$4,000 above his exemption, it manifestly pays to work harder and earn \$2,000 more, for Uncle Sam lets him keep three dollars out of every additional four that he gains by his hustling," Dr. King reports. "The man making \$8,000 above his exemption will probably feel it worth while to add \$2,000 to his income, for he is still privileged to keep two out of every three added dollars."

"However, for the man having an income of \$15,000 above (Continued to page 184)

## American Beauties in the Colonial Tradition



Sager's excellence of styling and range of designs have paced the field in winning approval among architects, builders and contractors. Of course, beauty alone will not sell hardware. That's where Sager's utility values score, not for beauty alone, but also for ease of installation and smooth operation. For over 50 years these qualities have made the Sager line a top-quality line . . . a line exceedingly sales-worthy for Sager dealers everywhere.

Better Style in Builders Hardware by

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# Lemco SOLID STEEL CASEMENTS

America's Oldest Casement Windows



Lemco's thirty years of quality workmanship with over one million casements satisfactorily installed is your guarantee of a perfect job.

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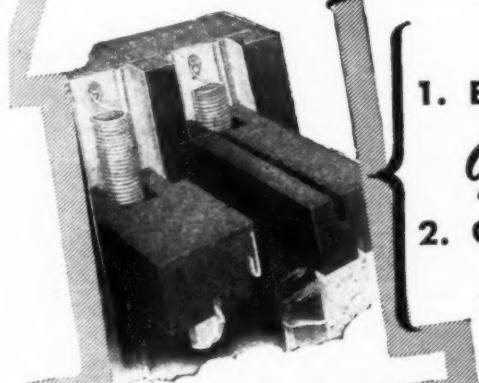
See our catalog in Sweet's or write today for your copy.

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For new or old building. Easily installed bronze channel strips and rust-proof steel springs. Smooth, quiet, efficient operation. A tried product that builders swear by . . . used with outstanding results in Milwaukee for 10 years . . . now available on national market.

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"Which means you want double hung wood windows equipped with **DUPLEX ADJUSTABLE FLAT SASH BALANCES**—the finest window combination obtainable."



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Type of Business: \_\_\_\_\_





**T & S**  
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# Hidalift

## 100% CONCEALED SASH BALANCE

The trim architectural lines made possible by the elimination of bulky old-style sash-weight boxes appeal to home designers and builders . . . are positive selling points to the prospective home owner. Other important features are:

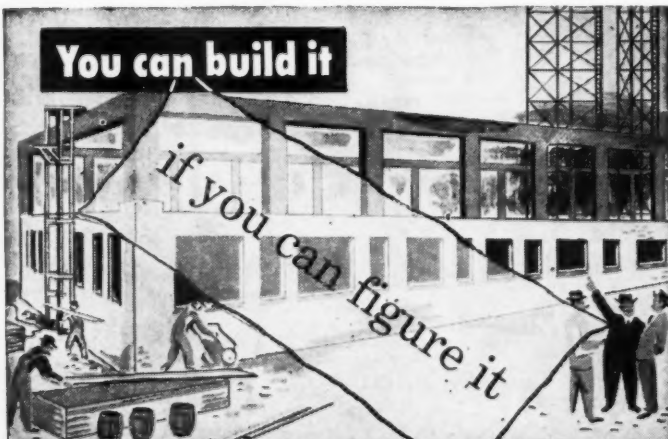
**SELF-CENTERING** An exclusive feature of HIDALIFT Sash Balance is the self-centering guide bushing which maintains perfect balance . . . prevents jamming . . . eliminates templates in installation.

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**LIFETIME SERVICE** HIDALIFT is sturdily made and all parts are permanently rust proofed. The tension spring is sealed within the tubing to prevent wear caused by dust.

*WRITE for completely descriptive literature including installation details and listing sizes and specifications for all standard sash sizes.*

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Send me Tambllyn System on 10 day trial. I will pay \$5 per month until \$30 is paid if I keep it. If not, I will return it.

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**SEND NO MONEY! TRY IT BEFORE YOU BUY!**

(Continued from page 168)

not guilty of discriminating against workers or using threats, they are as free to express their views as you.

**Q.: My workers have not left their jobs but they are refusing to work on raw materials made by a company in our area whose workers are on strike. What can I do about it?**

**A.:** This is for all practical purposes a sympathy strike or boycott, and illegal under the new law. You can file an unfair labor practice charge with the NLRB and such cases will be given priority.

**Q.: How about welfare funds?**

**A.:** The new law puts stern restrictions on this type of employee benefits. The welfare fund can no longer be administered by the union alone. There must be joint administration, and the fund cannot be used for any other purpose than pensions, health, etc. The monies cannot be used by the unions for strike benefits, organizational drives, etc.

**Q.: What about suing a union?**

**A.:** If the union commits an unfair labor practice such as forcing you to fire a worker for other than non-payment of dues, you can sue in court for damages sustained by you. Or if the union conducts a boycott and you lose money, you may retrieve your losses through litigation.

**Q.: If an employer is just being organized—can he recognize the union without demanding that it seek certification from the NLRB?**

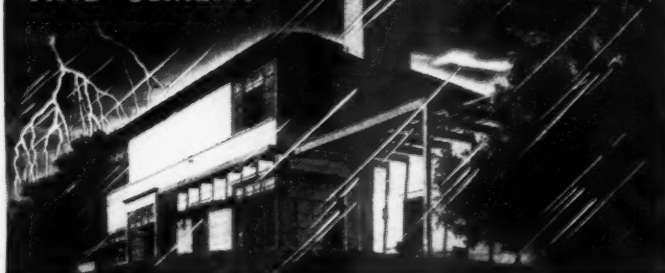
**A.:** Yes, but don't do it. Always ask the union to be certified and the law gives the employer plenty of permission to make that demand.

**Q.: Under the new rules, unions now have to file a raft of information with the Department of Labor about their financial status, by-laws, communist affiliation, etc. Will that information be open to employers?**

**A.:** That question is still unanswered. The chances are that the "dope" given by unions to the Government will be classified as confidential.

## Cabot's Waterproofing

### COMPLETE PROTECTION FOR BRICK AND CEMENT



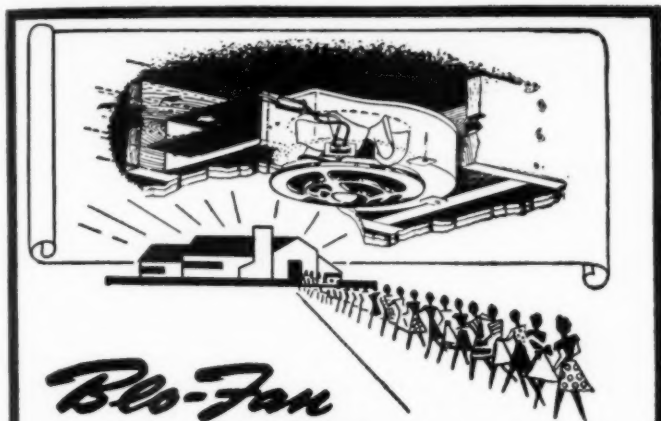
Cabot's Waterproofing completely fills and seals all voids and pores in above-grade masonry surfaces . . . keeps out moisture for years. Prevents efflorescence. Prevents disintegration caused by water seepage, freezing and thawing.

**Cabot's Clear Brick Waterproofing** for red brick and dark surfaces.

**Cabot's Clear Cement Waterproofing** for stucco, cast stone, concrete, and light surfaces.

**Free Sample** and complete information. Fifty years of experience prove the long lasting benefits of Cabot's Waterproofing. Write today!

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**pulls CUSTOMERS as well as air**

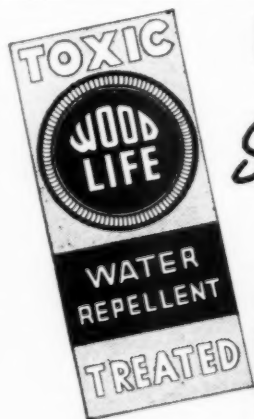
The modern housewife wants her kitchen kept clean and her home free from odors. Blo-Fan helps you convince her that your home has what she wants. Blo-Fan, (a patented combination of fan and blower) builds in easily in the ceiling over the range—where the fan belongs.

A postcard will bring you complete information and the name of the distributor in your vicinity.

**Blo-Fan**

- combination fan and blower
- more than a fan
- more than a blower

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*Satisfactory Siding*



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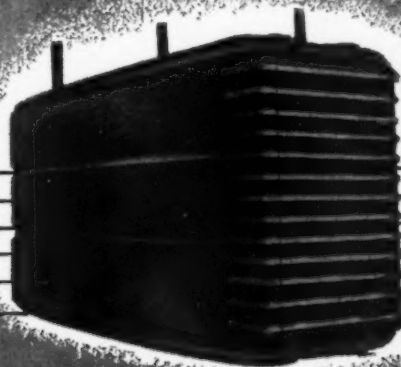
—that doesn't split or check or warp. No complaints about blue stain or rot and IMPORTANT, an unblemished paint surface, free of blisters, cracks and discoloration.

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Mrs. of CHEMICAL PRESERVATIVES Since 1921  
Research Laboratory and Plant KALAMAZOO, MICH.

*New* **FUNCTIONAL**  
*Beauty*



*...for Stores, Industrial  
and Public Buildings...*

Modern functional styling is now carried from today's architecture and decoration right into heating equipment. Appropriate in appearance and performance for every type of industrial and commercial gas heating. With fan and controls fully enclosed, the Pacific gas-fired Suspended Heater is completely streamlined.

Embodying the finest materials and the most efficient design yet created, it combines a heavy duty fan with Pacific's exclusive Thermo-flo heating element. The Suspended Heater directs an effective warm-air stream to a surprisingly large area. It requires no pipes, no boilers, no complicated plant nor installation.

*Write for catalog (soon off the press) and  
name of your nearest dealer-contractor  
for Pacific's Suspended Heater.*



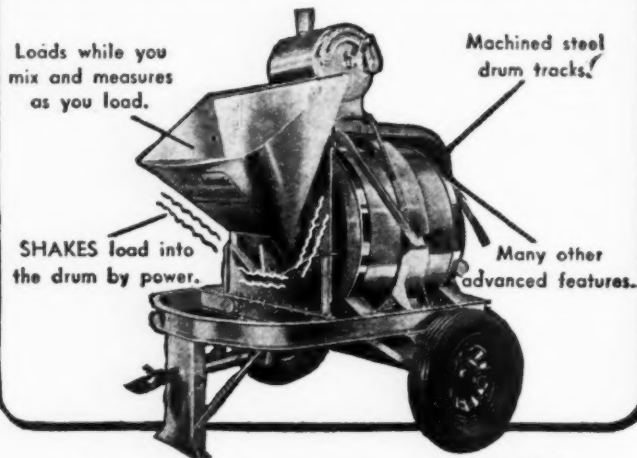
**PACIFIC HEATER DIVISION**

NACO MANUFACTURING CO.

P. O. BOX 310 • HUNTINGTON PARK, CALIF.

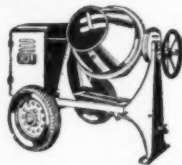


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### Automatic Shaker-Batcher loads QUICK-AS-A-FLASH

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Write for details!

**THE MAJESTIC CO.**  
834 Erie St. Huntington, Ind.

### Majestic No. 30 FUELLESS HOME INCINERATOR



Nationally Advertised Home Necessities for Over 40 Years.

## Fir Door Institute Inaugurates Full Inspection System

**A** COMPREHENSIVE reorganization of the Fir Door Institute, with inauguration of a full inspection system, based upon official Institute standards, and the employment of a managing director to head this program, was announced today.

N. O. Cruver, president of the Fir Door Institute, Tacoma, Wash., said the inspection system, approved by member companies of the Institute, will be inaugurated August 15.

"By inaugurating this official inspection system," said Mr. Cruver, "the fir door industry serves notice that it intends to build up high manufacturing standards for its stock doors."

"Member companies of the Fir Door Institute will carry on their products the official grades of the Institute, and the seals will include the identifying F.D.I."

Mr. Cruver said that with the inauguration of full inspection, and approved seals on doors manufactured by Institute members, fir door manufacturers will commence production of doors with dimensions 1/8-inch less height specification, and 3/16-inch less width.

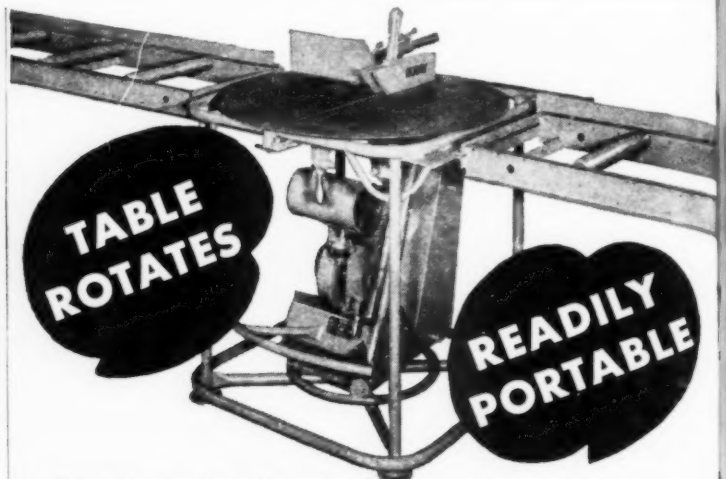
The inspection system will be under the direction of Homer J. Galbraith who has been appointed chief of the Technical Division, Fir Door Institute.

These new dimensions of pre-fit stock doors will permit easy installation of the doors on the job, avoiding all previous sawing, trimming and planing.

"This new door," said Mr. Cruver, "will, we believe, expedite building, and reduce costs, since installation can be accomplished in substantially less time than before."

To inaugurate the new promotion and grading program, the Fir Door Institute has taken offices on the seventh floor of the Tacoma Building, Tacoma, Wash.

John O'Hara Harte has been appointed new managing director and has already arrived from Philadelphia to assume his duties as head of the Institute's staff and activities.



With the circular table and sawing mechanism combined in a single unit, instant change from rip, cross or miter cuts is made by rotating table. Since all cuts are made with the lumber remaining lengthwise on the steel extension tables, cutting is speeded up. The saving in time alone soon pays for this saw. The Nordberg-Buday Saw is readily portable — easily carried by two men. Furnished with gasoline engine or electric motor drive.

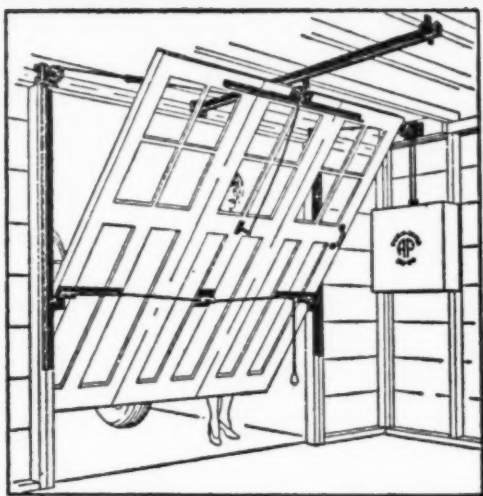
Write for Bulletin 132.

**NORDBERG MFG. CO., Milwaukee 7, Wis.**  
Distributors in Principal Cities

# NORDBERG-BUDAY POWER SAW



# ALLITH



## 50-50 PUSH-OVER GARAGE DOOR HARDWARE

This fine Hardware set is the answer to your customers' needs for an easily installed perfected overhead door action.

**ALLITH-PROUTY, INC.**  
DANVILLE, ILLINOIS

## WAGNER DOOR HANGERS



AND  
TRACKS  
FOR  
INDUSTRIAL  
USE!

★  
**HEAVY  
DUTY**  
★

Can be furnished with Ball Bearing, Roller Bearing or Hyatt Roller Bearing Trolley for doors up to 1,000 lbs.—2¼-3½" thick.

### WAGNER HANGERS

also available for doors up to 2,000 lbs.  
Ask your Jobber or Dealer

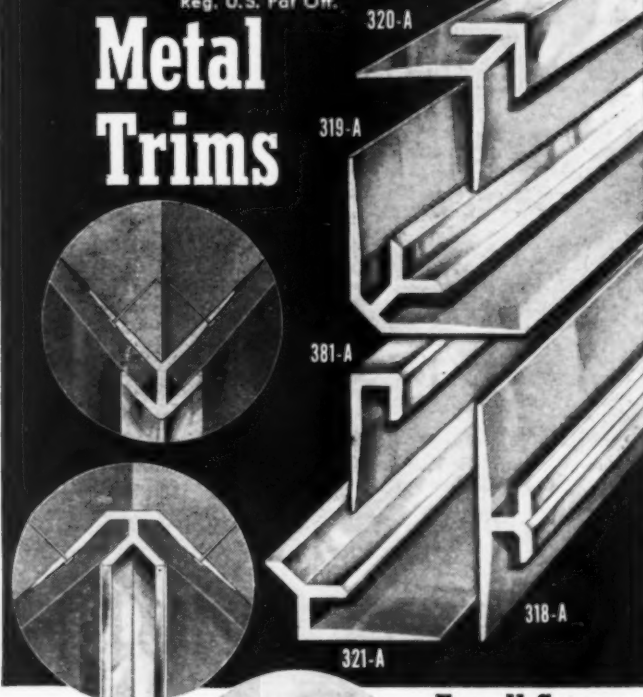
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MANUFACTURING  
COMPANY**

Dept. AM-947  
CEDAR FALLS, IOWA

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For every  
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Application

For all Gauges  
of coverings  
up to ½"

You'll find trims for *every* need in the big line of *over 450* Chromedge stainless steel and extruded aluminum moldings. The *matched series* at right adds a modern, *uniform* finish to wall-board installations, on corners, wainscot, cove base, and wall paneling—from floor to ceiling! Available for all wall and floor materials. Bright or satin finish, or in B & T's "rub-proof" Chromalite finish.

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in New or Old Homes

"Quik" and Economical  
Heat for Chilly Days



Add substantially to the value, utility, comfort and convenience of the home by installing the new improved, quick-acting, fuel-saving **Electric Quikheter**.

Attractive in appearance, low in cost, and easy to install, **Quikheter**s are ideal for damp chilly days when extra heat is needed or for days when the regular heating plant is not in operation.

Available in 1000 and 1500 watts single units; 2000 and 3000 watts twin units. See your electrical contractor for details, or send for Bulletin 77.



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ELECTRIC COMPANY  
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...**Johnson Oil Burners**...  
S. T. JOHNSON CO.  
940 Arlington Ave., Oakland 8, Calif.  
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(Continued from page 178)

his exemptions, the worthwhileness of striving to take in another \$5,000 raises serious questions in his mind for, in his case, the Federal Government takes more than half of the added gains. One can hardly expect the man receiving \$100,000 to be much interested in doubling his income, for, if he does, he can only keep for his own use one dollar out of every additional seven.

"Obviously, the present income tax law constitutes an effective device for preventing the most efficient business and professional men from fully utilizing their talents," Dr. King continued. "The law acts, therefore, as a damper on production, and hence lowers the income of the average citizen."

"In addition, it prevents him from accumulating capital and thus hampers not only his progress, but that of the nation as a whole."

### HOW ADDED EARNINGS ARE SHARED IN 1947

Individual's Net Income After Exemptions	Additional Income Gained by Working Harder to Reach Next Higher Figure in Left Hand Column	Additional Dollars Taken by Federal Income Tax	Dollars of Gain Remaining After the Tax is Paid	Per Cent of Gain Remaining After Tax is Paid
\$4,000	\$2,000	\$494	\$1,506	75.2
6,000	2,000	570	1,430	71.5
8,000	2,000	640	1,360	68.0
10,000	5,000	1,992	3,008	60.2
15,000	5,000	2,403	2,597	51.9
20,000	10,000	5,662	4,338	43.4
30,000	10,000	6,194	3,806	38.1
40,000	10,000	6,726	3,274	32.7
50,000	25,000	18,383	6,617	26.5
75,000	25,000	20,092	4,908	19.6
100,000	100,000	85,025	14,975	15.0
200,000	300,000	259,350	40,650	13.6
500,000				

## METAL WEATHERSTRIPPING

All Types Immediately Available



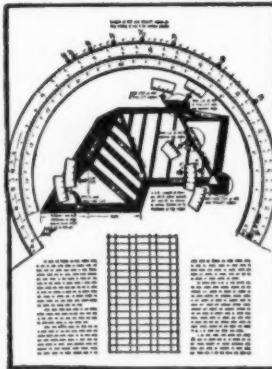
- Metal Weatherstrips
- Thresholds
- Calking Compound
- Screen Guides

New Catalog No. 47 Available Now

WRITE FOR YOUR COPY TODAY

**CENTRAL METAL STRIP CO.**  
4343 N. WESTERN AVE. CHICAGO 18, ILLINOIS

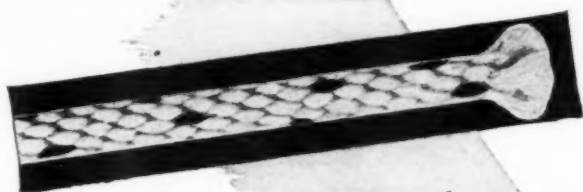
### SOLVE ROOF PROBLEMS INSTANTLY - SAVE MATERIALS



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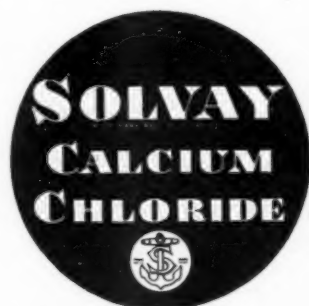
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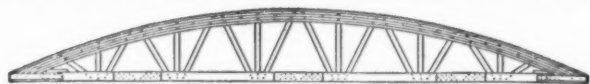
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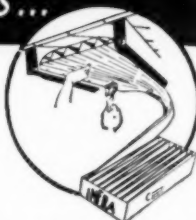
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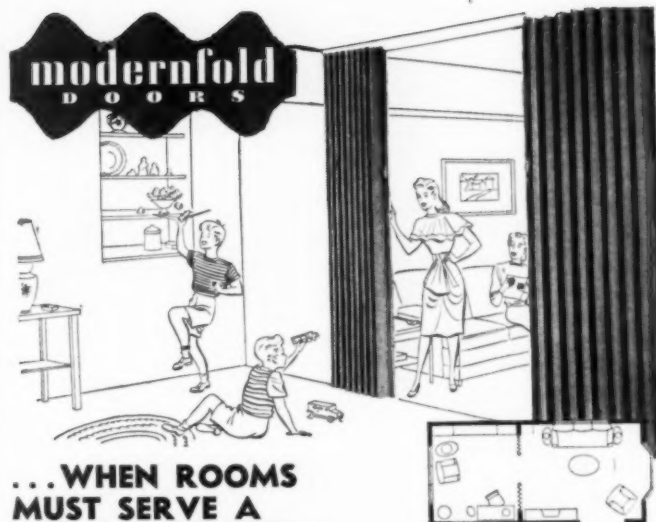
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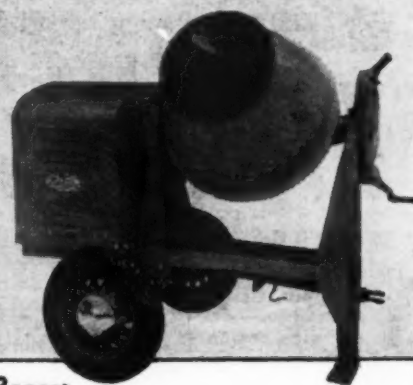
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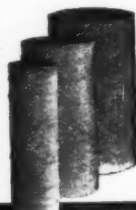
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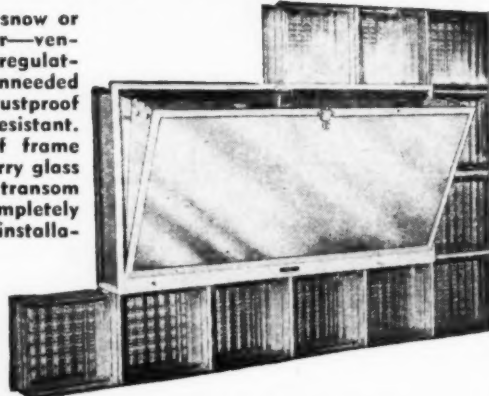


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### Demand and Sale of Homes Increased Sharply in Long Island Area in June and July

**S**ALES of homes and demand in the Long Island, N.Y., area increased sharply during June and July according to Otto Hartwig, executive secretary, Long Island Home Builders Institute.

"Apparently," said Mr. Hartwig, "this is due to recognition by buyers that no sharp or early reduction in prices can be expected in light of continuing wage increases nationally and locally."

If the usual pattern of economic trends prevails, this experience on Long Island presages what will travel across the country in the remaining months of the year.

"The result of the increase in sales and demand for homes," continued Mr. Hartwig, "is that builders have stepped up their operations over the number of starts earlier in the year. Lumber, which eased in price early in the year, due mainly to local inventory liquidation, has increased again, especially in the upper grades which are extremely scarce."

"New construction costs builders are now assembling for projected fall activity indicate increases rather than decreases, and reflect considerable increases in wages during the past four months. Builders are hopeful of maintaining current price levels. Among the encouraging signs are that builders, in increasing numbers, are offering homes below eight thousand and nine thousand dollars."

### John B. Dodd and Winfield Lott Designed St. Petersburg Wedgewood Inn

**I**N the article on page 116 of July *American Builder*, the architects who designed the Wedgewood Inn, St. Petersburg, Fla., were listed as John B. Dodd and William B. Harvard. Although Mr. Harvard is associated with Mr. Dodd, the Wedgewood Inn was designed while Mr. Harvard was overseas, and Winfield Lott, a local architect, worked with Mr. Dodd on the job.

*No Edger Needed*

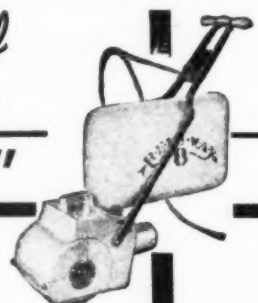
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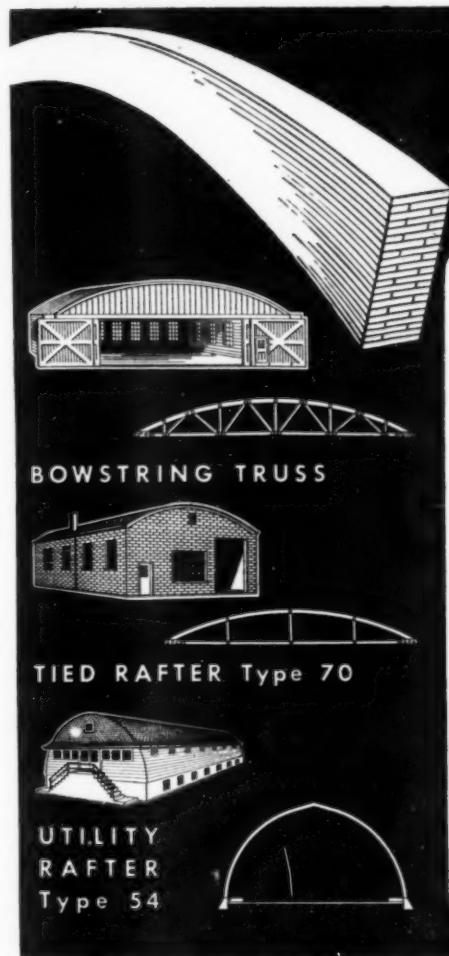
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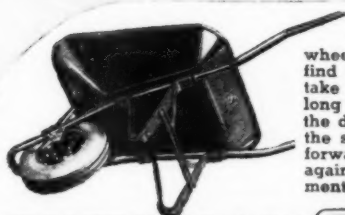
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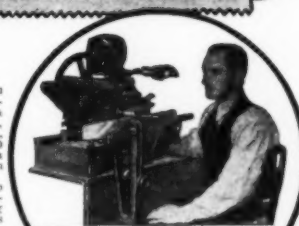
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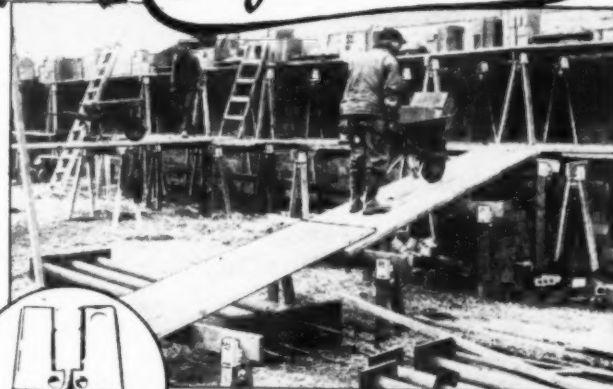


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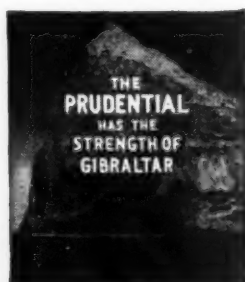
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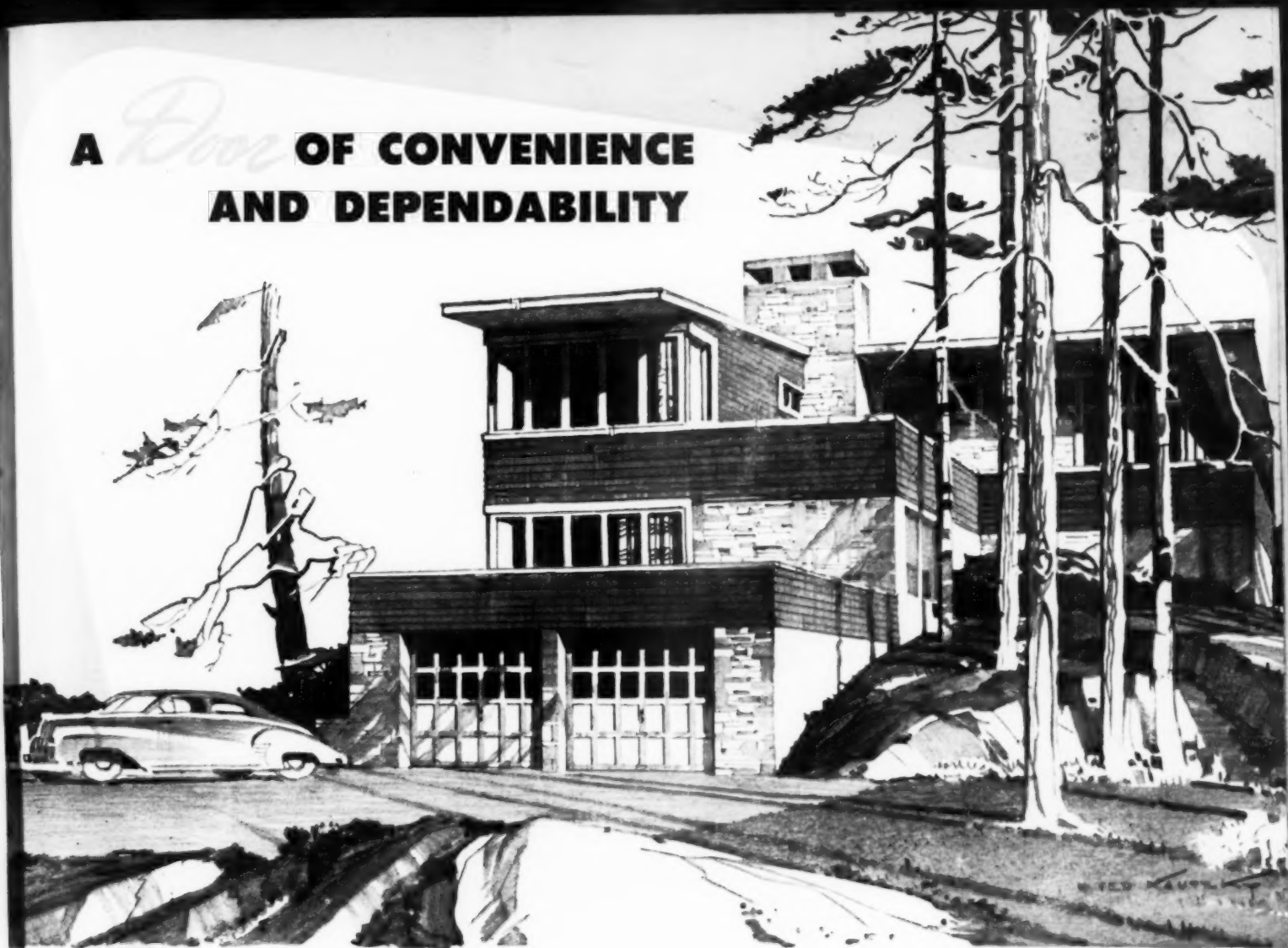
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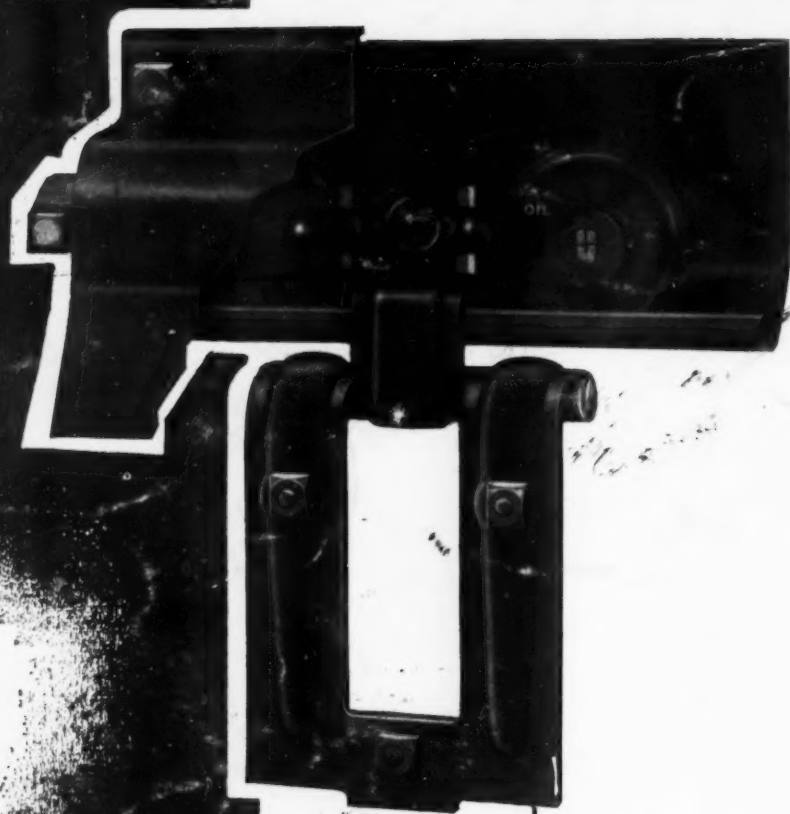
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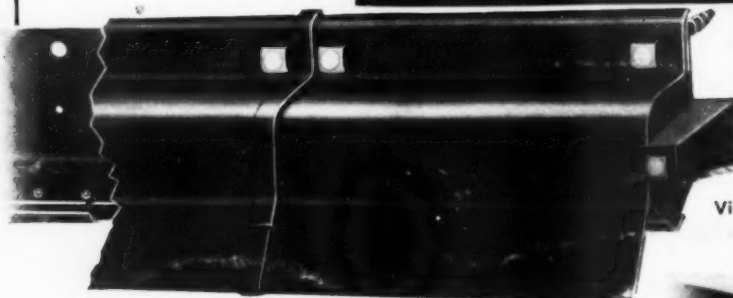
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The National No. 77 Flexible Storm-Proof Hanger is equipped with two wheels in tandem with anti-friction-steel roller bearings. Oil holes are provided for the bearings.

When door hangs straight down there is no vibration in the hanger. The hinged joint allows door to swing out should anything bump against it.

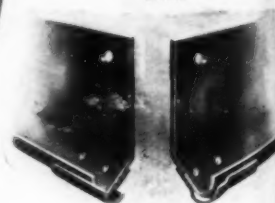
Both the connecting-strap and hinge-strap are made of  $\frac{3}{16}$  inch thick steel, heavily embossed, giving utmost strength and rigidity. The free-acting equalizing-pin which attaches connecting strap to truck holds the truck firmly in upright position.

Japanned finish.

Packed one pair in a box, with bolts for attaching the hangers to door; also lag screws and end-stops for the rail. Included are illustrated directions for installation. A socket wrench for lag-screws and bolts is packed with every two pairs of hangers.

National Storm-Proof Rail is for use with National No. 66, No. 77, or No. 88 Storm-Proof Hangers. Here are some of its advantages: Fits closely against buildings. Storm and bird-proof. No brackets required as the rail itself forms a continuous bracket. Exceedingly strong—will support all the weight the hangers will carry. Rail joints dovetailed, forming the sections in practically a one piece rail. No splice cover necessary. Cover can be removed at any time for painting inside the rail.

View showing construction of Rail Joint



# NATIONAL MANUFACTURING CO.

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